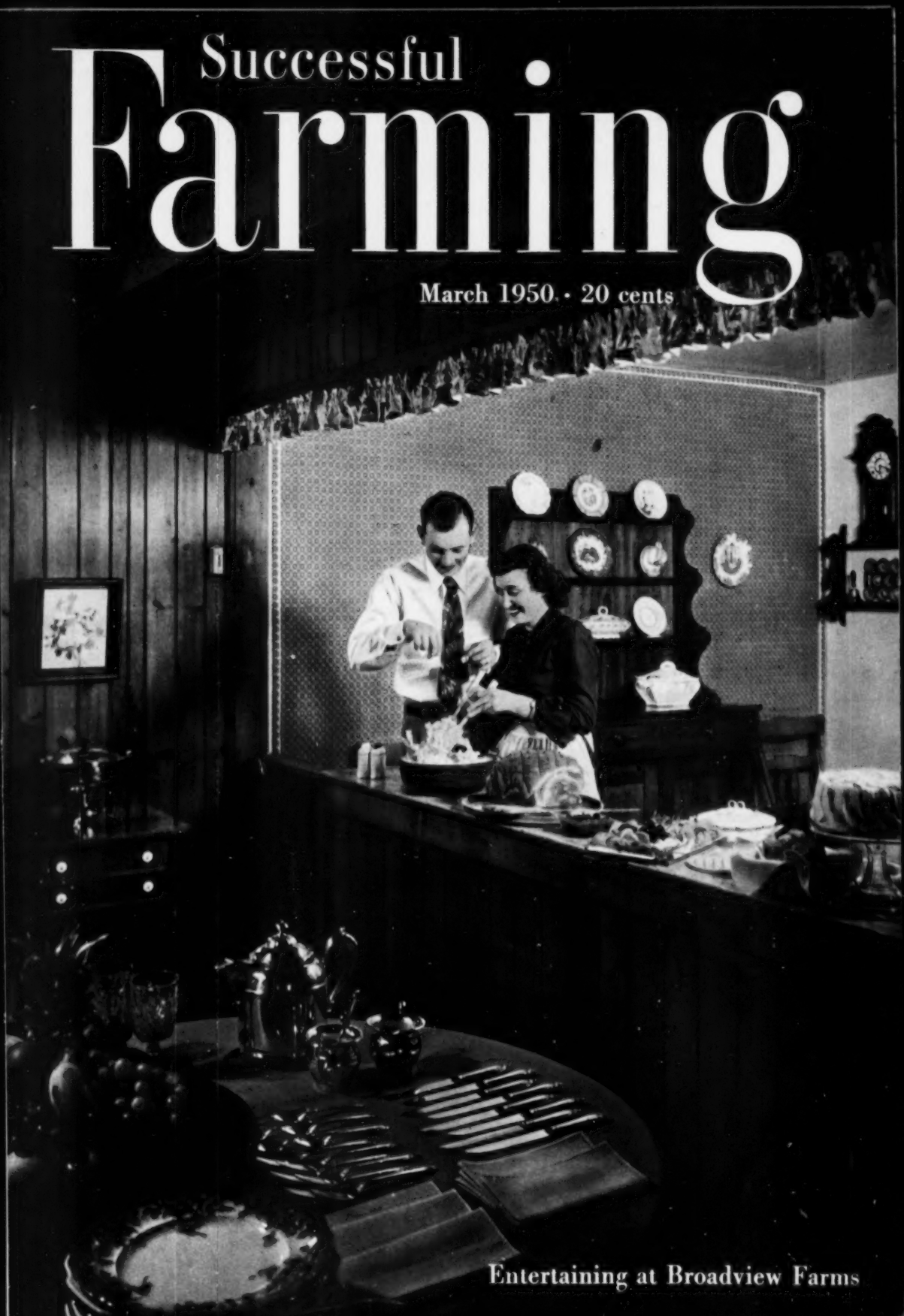
Successful Farming

March 1950 · 20 cents



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Of Course You Know THAT GOOD CULTIVATION HELPS ASSURE BETTER CROPS!

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MODERN MACHINERY

Cultivators ASSURE CLEAN FIELDS...AND MORE THAN THAT...

MM's Quick-On—Quick-Off cultivators—teamed with dependable MM Visionlined R, Z and U tractors—help the farmer cultivate faster and better with less labor and less equipment investment. These tractor-attached cultivators help develop bigger and better crops by *thoroughly* destroying the weeds, by conserving more moisture around each plant with a loose soil mulch, by releasing valuable plant food from the soil . . . and by allowing the moisture that falls to be properly utilized. MM soil working tools are correctly designed to do these jobs under all cultivating conditions. Be sure to see the new rotary hoe attachment. Shovels and other equipment to fit all needs available.

DO A BETTER JOB—Heavy-duty lifting roll raises tools high at row's end for short turns—for easy transport—and lowers them quickly, smoothly, and gently. MM parallel link construction of front mounted planters and cultivators—aided by MM gauge wheels which follow the contour of the ground—assure uniform working depth of tools as set—even on rough ground.

SAVE TIME AND EFFORT—MM cultivators fasten quickly and easily to the tractor. Sturdy clamps and a simple slip-pin attachment method make Quick-On—Quick-Off implements a part of the tractor. Row spacing is simply adjusted by sliding tools to proper position before tightening clamps. Tools fit all old and new MM attachor bars and cultivator frames permitting owners to buy new MM tools as needed. Interchangeable features save time and the cost of buying and putting on extra levers, frames, hitches, wheels, etc.

UNI-MATIC POWER—Optional Uni-matic power with built-in safety lockout gets the work done faster, easier and reduces labor with "finger tip" control for adjusting, lifting and lowering working tools—now available for both mounted and pull-behind implements.

See Your Friendly MM Dealer for Complete Facts or Write Direct, Stating Your Requirements.

MINNEAPOLIS-MOLINE
MINNEAPOLIS 1, MINNESOTA

Economical Universal U doing precision cultivating, 4 rows at a time.

New Z has plenty of power to handle 4-row cultivator under most conditions.

Above: New Z tractor in tobacco. MM Quick-On-Quick-Off tools handle all crops.

Below: MM features high clearance to handle such tasks as late cultivating of all crops.

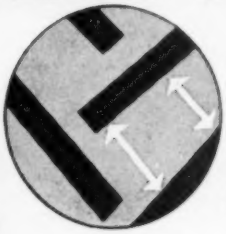
Above: No stretching, no straining to see with MM's *Visionlined* tractors.

Below: Get MM Quick-On-Quick-Off tools and new Uni-Matic Power to do more work faster.

Above: ZAE and 2-row cultivator . . . in cotton.

Below: Clearance—31 inches—the Universal Cane type U tractor.

NO OTHER TIRE has this WEDGE GRIP

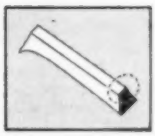


SEE HOW

Goodyear lugs set closer together at shoulder than at center of tire. So the soil is wedged in tightly as tire pulls — doesn't shoot out at sides until lugs leave ground. Result: greater grip, less slip, stronger pull.

SEE HOW

maximum traction comes from straight lug bars extending straight across tire's crown. They don't curve toward direction of travel — so you get full-lug pull, longer wear, no wobble.



SEE HOW

you get deeper bite from Goodyear o-p-e-n c-e-n-t-e-r design. Goodyear lugs have no hooks, knobs or elbows to blunt their bite, so give clean, full-depth penetration.

That's why SUPER-SURE-GRIPS pull where other tires won't!

JUST take a look at the position of the lugs in the massive Goodyear o-p-e-n c-e-n-t-e-r SUPER-SURE-GRIP tread and you'll see one of the biggest reasons for this tire's unmatched traction and pulling power in day-to-day farm work.

Note that its big, husky lugs are closer together at the shoulder than at the center of the tread. As a result, Goodyear lugs *wedge* the soil between them for sure, positive grip. The soil is tightly compressed as the lugs are pulling — it doesn't tear loose and sluice out at the sides as it would if the lugs flared wider at the shoulder.

Note too that every Goodyear lug extends straight as a ruler's edge *across* the tread, with no "toe-in" at the center. So every lug *pulls equally for its full length and depth.*

This exclusive wedge-grip, straight-bar design explains why Goodyear SUPER-SURE-GRIPS give "the greatest pull on earth" — and why farmers have voted them America's first-choice tractor tires.

Remember—only the Goodyear o-p-e-n c-e-n-t-e-r SUPER-SURE-GRIP gives you the *proved* traction, long wear and smooth riding of straight-edged, equal-size lugs with wedge-grip action. It's the tractor tire most farmers want because it pulls where other tires won't—*yet it doesn't cost you a penny more!*

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GOODYEAR

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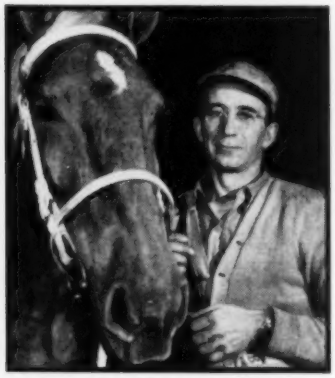
Super-Sure-Grip—T.M. The Goodyear Tire & Rubber Company

Wins International Grand Championship 3rd Straight Year!

Ohio Farm Family Again Wins Top Award For Belgian Mare



George Harkness and 3-time champion mare, Victory. Like many farm and sports winners, Harkness is a Wheaties man. How about you? Getting YOUR Wheaties?

SANDUSKY, Ohio—Again George Harkness' horse Victory is International Live Stock exposition's Grand Champion Belgian mare! Victory has won this honor each year since 1947. She's also been National Belgian show Champion all three years!

* * *

Horses aren't all the Harkness family raise. They also grow 400 acres of general crops. 400 acres of hard work! Good thing they eat lots of Wheaties. George has Wheaties 6 days a week. Likes 'em with milk and peaches.

"Joe! Let him *have* the Wheaties! We'll get more in town!"

Favorite hobby of Harkness family is showing draft horses. Family also agrees on liking Wheaties. So *many* families do! Wheaties are America's favorite whole wheat flakes. Second-helping good!

Wheaties are a mighty fine family cereal. Nourishing 100% whole wheat flakes. A famous training dish, furnishing B vitamins, minerals, protein, food energy. Had YOUR Wheaties today? "Breakfast of Champions!"

Extra value with Wheaties. (1) *Silverware coupons in Wheaties and other General Mills products.* (2) *50% more than regular size in Wheaties Extra-Big-Pak.*

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Successful
Farming
The Dairy Farmer

THE MAGAZINE OF FARM BUSINESS AND FARM HOMES

March 1950 — Vol. 48, No. 3

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Just in Case...

EVEN THOUGH there's only a distant threat of rain or snow in the air, you see to it that the children are dressed to keep them warm and dry—just in case.

And yet, careful as you are about so many other things, you may have overlooked one of the most important protections your children—and your wife—ought to have.

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Farm Outlook

Latest information on conditions, production, markets, and income prospects

Prospects for last half of 1950

Most government and private forecasters were agreed on high industrial production for the first half of 1950; fingers have been crossed for the second half. Despite the fact that 1949 was a year of adjustments in business and farm prices, unemployment averaged only 6 percent of the civilian labor force, and personal income payments in the lowest month of 1949 were only 5 percent below the peak month of 1948.

Department store sales in December were up to a year previous; and inventories of retail merchants have been held to conservative levels, shown by comparatively few January sales. Automotive companies are planning high output at least for the first part of 1950. Outlook for several other industries is promising, especially steel, textiles, household appliances, and paper. Construction contracts awarded are at higher rate than a year ago.

Time for figuring

Picture for high-level employment, pay rolls, and consumer buying looks good. Trouble spot is the mounting inventories of farm products. Forecast for 1950 is lower farm income either through smaller output or through lower prices. Government agencies predict a further decline of 10 percent this year in cash farm income.

Even more than 1949, this is a year when farmers will make their best money from "figuring" how to hold up production and cut costs. Have you stopped to figure why the top one-third farmers average several thousands of dollars more income than other farmers on similar farms of the same size? Farming is a business; your results largely depend upon how good a manager you are.

Boost poultry and livestock

U.S.D.A. apparently is gearing its policy toward encouraging maximum use of feed. Egg and dairy price supports plus unofficial hog price forecast indicates government will aim for a greater livestock economy. Adequate price supports for grain-consuming animals could boost total production of meat, milk, and eggs to where last year's corn crop might be fed.

In fact, some analysts believe the 1950 corn acreage allotment is too small, in view of this year's increased feeding requirements. The production goal is 2.6 billion bushels against a disappearance estimated at 3.2 billion. If this year's crop does not exceed the goal figure, the supply (including carryover) for 1950-51 will be only 3.5 billion bushels, leaving a carryover of only 300 million bushels in October, 1951. Washington officials were saying that an annual reserve of 1 billion bushels of corn would not be too much.

Watch out if the 1950 corn crop makes much less than 3 billion bushels. If that happens, market prices or government loans may be more attractive to many farmers than the production of livestock. This would stop the expansion in the production of meat, milk, and eggs.

Tighter farm controls

You can look for increased government crop controls in 1951, unless crop production is reduced this year. Even this early in the season, indications are that marketing quotas may be applied to next year's wheat, with acreage allotments on corn and other grains as well. Also, you may be hearing more and more about "fixed" bushel quotas in addition to acreage allotments.

Wheat allotments for this year's crop totaled about 15 percent less than 1949 seedings. But indications are that the '50 crop may yield close to the approximately 1,150 million bushels produced last year. Total supply of wheat (including carryover) next July could top 1.5 billion bushels. This would be enough above "normal supply" to require marketing quotas (as well as further acreage reductions) on the 1951 crop. Washington planners probably will try to cut '51 production to not more than 1 billion bushels.

U.S.D.A. officials are beginning to doubt that acreage allotments alone can reduce crop production very much; some say that marketing quotas cannot do the complete job, unless there are "fixed" bushel quotas on every farm. Under the present system, a farmer can market without penalty all he produces on his allotted acres; "fixed" quotas would remove some of the incentive to increase yields.

This shift to beef

If you are one of the many farmers shifting to beef production as a means of using more pasture and hay, here is something you should keep in mind. You can't expect beef prices to stay as favorable, compared to dairy, poultry, and other meat prices, as they have during the last few years. Milk prices, repeal of oleomargarine taxes, and labor situation is encouraging many dairymen to shift to beef production.

Beef cattle numbers run in cycles. Changes in prices follow changes in numbers. The record shows five peaks in cattle numbers during the past 75 years. Peak numbers occur about 15 years apart, and the latest was in 1944-45. Then numbers dropped about 7 million head in five years. Now, farmers and ranchers are holding back heifers; cattle numbers are on the upswing again. Next peak is expected about 1955-56.

Beef cattle prices in relation to other prices also tend to run in cycles. We're at the high point in the cycle now because numbers of cattle on farms are low and females are being held back for breeding. As cattle population reaches its next peak and farmers begin to sell in larger numbers, beef cattle prices in relation to prices of other farm commodities will weaken. Keep this in mind as you plan how to use the increased grass and legumes you may have on your farm.

Production costs decide

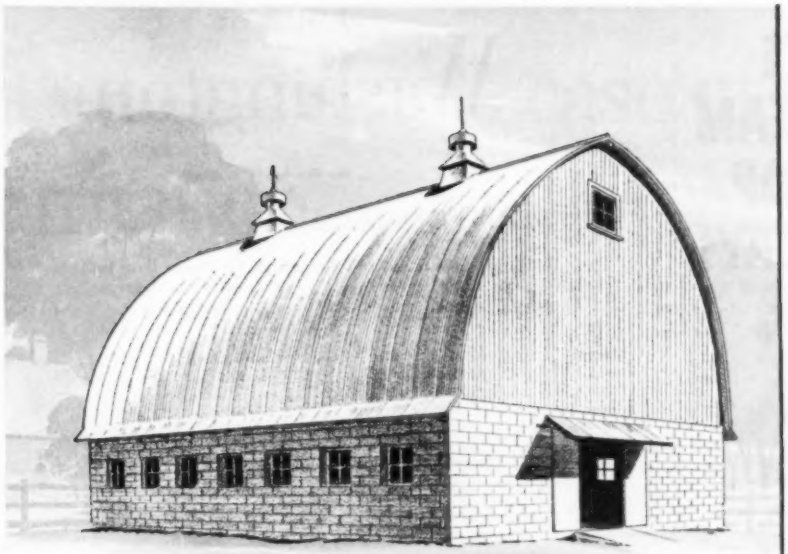
High-cost producers are taking a big chance by increasing sows to farrow this year. A government loan on 1949 corn crop (available through May) could promise a more certain profit.

The government pig report indicates that the 1950 spring pig crop will be about 6 percent above last year. Ordinarily, this size increase brings about a 10-percent cut in hog prices, assuming no change in demand.

If prices next fall are 10 percent lower than in 1949, you will have to sell 11 percent more hogs (by weight) to get the same amount of money. It's too late to increase the number of sows to farrow, but you can still farrow more pigs per litter. That's the way top-notch farmers do it. See "How to Cut Farrowing Losses," page 180.

Cut grain for dairy cows

It takes feed to make milk. Backbone of the feeding program is roughage. In recent years dairymen have increased grain feeding; production per cow climbed to record levels. Weaker dairy prices could call for some reduction in the grain ration, especially if you must buy most of your feed. Cheapest feed in most cases is home-grown. Use it, but think twice before you cut all grain from the ration. END



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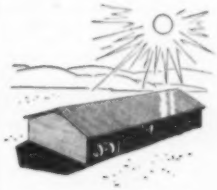

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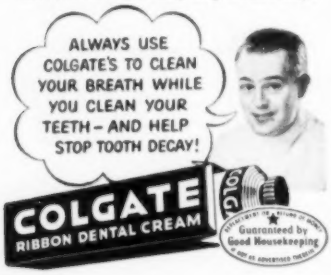

THE FARMER'S

Washington

By Richard Wilson

- **How people can be smeared in Washington**
- **Secretary Brannan-Senator Anderson feud boiling**
- **Watch Henry Wallace stage a comeback**

Change. Times *do* change. Allan Kline, president of the American Farm Bureau Federation, recently suggested to the White House that he had some things to talk over with President Truman. The White House sent back word that Mr. Truman would be glad to see President Kline—but, with Secretary of Agriculture Brannan present.

Then it developed that Kline's appointments kept him from seeing Mr. Truman right at that time.

Wary. So, this Kline-Brannan bickering is quite a thing. Farm Bureau moguls decided President Kline was not well enough known to the general run of press and radio correspondents in Washington. Not the people specializing in farm information; they all know Kline. But the men who write politics, or columns in which agricultural news plays only a minor and occasional part.

They are a pretty wise and hard-bitten crew, widely experienced, very highly paid. Many millions of people read their stuff or hear them over the radio. Now, these writers and radio personalities will take a little nip before lunch on occasion—a Martini or Manhattan cocktail, or perhaps just a straight slug of bourbon whiskey.

Kline got them together for lunch; and he was not kidding anyone—these reporters know that farmers are no different from anyone else. They will take a short snort before lunch or dinner, if the occasion arises.

So sensitive were the Farm Bureau moguls to the possibility of criticism from Brannan, or somebody on his side, that they put a barrel of cider—sweet—on a bar in lieu of a more stimulating kind of appetizer.

Why was such precaution necessary? For the simple reason that this Farm Bureau fight with the Left Wing has become so very bitter. Based on past experience, it was not at all unlikely that Drew Pearson would have broadcast to waiting millions on Sunday night that Allan Kline had thrown a drinking party to woo the national press. And that, with the press groggy from rum, the same Kline had put over some nefarious scheme. Does this sound wacky? Well, that kind of thing already has happened before with Pearson the purveyor of the nonsense.

Kline's story. As a matter of fact, Kline had a pretty sober story to tell, and it was listened to with intense interest. Across the street at another hotel, the United States Chamber of Commerce was throwing a lunch for its president, to which many Washington correspondents were also invited.

But Kline drew the cream of the crop. He told reporters what some of them already knew, that administration sources had handed out to friendly columnists a scurrilous and untrue story about Kline. It was that Kline had had a deal with Tom Dewey to become secretary of agriculture "after he was elected president," and that the reason for Kline's opposition now to the Brannan Plan is his disappointment over Dewey's defeat. Undoubtedly you read about it.

There's nothing to this yarn. It was invented. Kline did not campaign for Dewey. He saw him once, and that was about international affairs, not domestic farm problems. Kline disclosed that he had voted for Dewey, but he had also voted for Roosevelt twice. And he made it clear that the Farm Bureau is a nonpartisan organization; and its aims are to help the farmer within the framework of sound national policy in other fields.

Brannan-Anderson. I did not intend to write entirely about the personalities in the farm movement. But personalities have now taken the center of the stage. There's Clint Anderson, for example. He and Brannan are at loggerheads, and Anderson is not fooling. The former secretary of agriculture, and now senator from New Mexico, is chairman of the senatorial campaign committee.

That means he is taking part in getting more Democratic senators elected. In doing so, he also puts himself farther forward in national politics. When he does that, he runs square up against Secretary Brannan. Presidential ambitions are attributed to both Anderson and Brannan.

Where this begins to hurt is when you get down to cases. Brannan would like very much to have his undersecretary of agriculture, Ai Loveland, run for U. S. senator against Bourke B. Hickenlooper in Iowa. Brannan doesn't say anything publicly, but take it from me, that is what he wants.

How does that set with Anderson? We don't know. But we do know that Anderson is not hot for the Brannan Plan and, if Loveland runs, he will have to run as a Brannan Plan candidate, or repudiate everything he has stood for up to now. Consequently, Anderson will have to decide whether to help Loveland in the campaign.

[*Turn to page 15*

NOTED THROAT SPECIALISTS REPORT *on 30-Day Test of Camel smokers . . .*

Not one single case of throat irritation *due to smoking* CAMELS!

Yes, these were the findings of noted throat specialists after a total of 2,470 weekly examinations of the throats of hundreds of men and women who smoked Camels—and only Camels—for 30 consecutive days.

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AH! SATURDAY—OFFICE CLOSED! Off to the tennis courts. Rita calls time-out for a Camel and confides: "I am delighted to be making the test. Every Camel tastes so good!"

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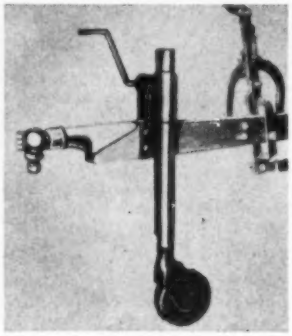
Grease-fitting cleaner

Power saw. Any quarter-inch drill serves as the power source for this new saw. It is furnished with a 4-inch, combination rip and crosscut blade, and has a maximum depth of cut of one inch. An adjustable aluminum plate shoe fastens to the side of the saw frame. This shoe is indexed for straight-line cutting. In use, one hand grasps the saw's handle, the other holds the drill's pistol grip.—*Portable Electric Tools, Inc., 320 West 83rd St., Chicago, Illinois.*

Tongue jack. This wheeled jack is designed to support the tongue of baler, combine, picker, or any other implement or trailer. The crank locks in position, and the wheel rides high for traveling.—*Hammer Blow Tool Co., Wausau, Wisconsin.*



Tongue jack

Heat lamp for shop. Have you tried a heat lamp as your farm shop helper? Lots of folks have and find them very handy, especially if there are only short jobs to be done—not enough to justify a heating stove.

Soil perforator. To help hold water and seed on a sloping pasture, this tool might serve the purpose. Its 42 hollow tines operate like a leather punch, digging cores of soil to a depth of 3⅝ inches and dropping them on the surface of the ground. The inner drum is hollow and can be loaded with enough sand or water to assure good penetration.—*James Whitney and Co., Minneapolis 5, Minnesota.*

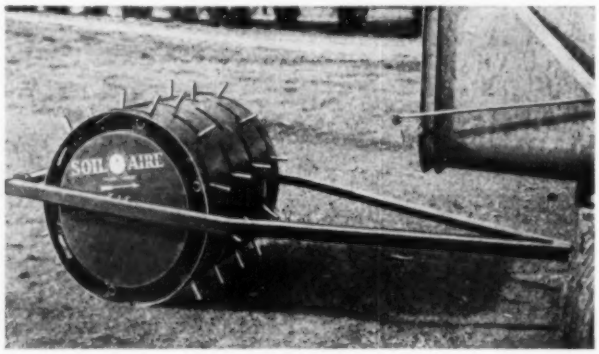
Haymow light. This haymow light uses a Mason jar as protective cover for the light bulb, making replacement easy. Such guards are recommended as a safety feature, because many barns have burned after the arc of an accidentally broken light bulb ignited accumulated dust particles. It can be used anywhere, but is especially favored for barns and poultry houses, or other buildings which are apt to be dusty. A round porch light globe, left, fits the same base.—*Union Insulating Co., Parkersburg, West Virginia.*

Haymow light

Blight-resistant chestnuts. Many of us have almost forgotten what a chestnut tastes like. But cheer up, U.S.D.A. has just released three new varieties of blight-resistant chestnut trees for orchard production. They will reach the size of a large apple tree and yield up to 100 pounds of nuts per 10-year-old tree.

Crushed hay cures quickly. The hay crusher gives the best quality field-cured hay in the shortest time, according to [*Turn to page 108*

Power saw



Soil perforator

Cultivating two rows of corn or other wide-spaced crops, Farmall C covers as much as 30 acres a day, or throttles down to a crawl for early, close cultivation.

Why you'll like your new FARMALL *at cultivating time*

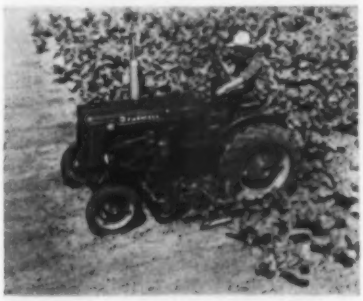
When it's time to cultivate, it's you and your tractor against the weeds and the weather. With a *Farmall* tractor and a choice of cultivating equipment, you get the job done *right*, and done *fast*.

From the comfortable Farmall seat, it's easy to guide the tractor and see the forward-mounted cultivator at work ahead of you. You kill the weeds at speeds up to five miles an hour.

At row-ends and grassed waterways, you just move a control lever or rod, and hydraulic Farmall Touch-Control for Farmalls Cub, Super-A, and C, or Lift-All for Farmalls H and M, raises or lowers the cultivator gangs. No slowing, no stopping.

Whether you need a 1-row, 2-row, or 4-row cultivating tractor, there's a Farmall that's just right for your farm. Also, multiple-row cultivators (one to six rows) for vegetables, beets, and beans. Remember, *only* International Harvester builds Farmall tractors. So see your IH dealer . . . ask him about convenient payment terms.

Farmall Cub cultivating strawberries—12 acres a day. This smallest of the five Farmalls does any job a team can do, and does it faster, better. Plows 3½ acres a day.



Hydraulic Farmall Touch-Control, shown here in use on Farmall Super-A with a 4-row vegetable cultivator, lets you raise, lower, and regulate all mounted implements with fingertip ease.

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International Harvester Builds McCormick Farm Equipment and Farmall Tractors . . . Motor Trucks . . . Crawler Tractors and Power Units . . . Refrigerators and Freezers

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Please send me the free booklet on:

- ☐ Farmall Cub—small 1-plow tractor
- ☐ Farmall Super-A—1-plow tractor
- ☐ Farmall C—1 to 2-plow tractor
- ☐ Farmall H, M, and MD (Diesel) —2-plow and 3-plow tractors

Other farm equipment _____

I farm _____ crop acres. My main crop is _____

Name _____

Post Office _____ State _____

My IH dealer is _____

A CHIFFON CAKE THAT REQUIRES ONLY 4 EGGS!

Betty Crocker of General Mills

4-EGG COCOA CHIFFON

MAKE ONLY WITH GOLD MEDAL FLOUR

Preheat oven (see pan sizes and corresponding temperatures at right). *Sift* an ample amount of GOLD MEDAL *"Kitchen-tested"* Enriched Flour onto a square of paper.

Stir until smooth, then cool . . . . . **3/8 cup (¼ cup plus 2 tbsp.) boiling water**; **¼ cup cocoa**

STEP 1...

Measure (level measurements throughout) and *sift* together into mixing bowl: **¾ cup *sifted* GOLD MEDAL *"Kitchen-tested"* Enriched Flour (spoon lightly into cup, don't pack)**; **7/8 cup (¾ cup plus 2 tbsp.) sugar**; ***2 tsp. baking powder**; ***½ tsp. salt**

Make a well and add in order . . **¼ cup cooking (salad) oil such as Wesson**; **4 unbeaten egg yolks (medium-sized)**; **the cooled cocoa mixture**; **½ tsp. vanilla**; **1/8 tsp. red food coloring, if desired**

Beat with spoon until *smooth.*

STEP 2...

Measure into *large* mixing bowl: **½ cup egg whites (4 whites)**; **¼ tsp. cream of tartar**

Whip until whites form *very stiff* peaks. They should be much stiffer than for angel food or meringue. DO NOT UNDERBEAT.

STEP 3...

Pour egg yolk mixture gradually over whipped egg whites—*gently* folding with rubber scraper *just* until blended. DO NOT STIR. Pour into *ungreased* pan immediately.

Correct pan size is very important. Pans should be measured across top. Use handy ruler shown on all recipe folders found in Gold Medal sacks.

BAKE

9-in. (not 10-in.) tube, 3½-in. deep— 325°—50 to 55 min.
8 x 8 x 2-in. or 9 x 9 x 2-in. square— 350°—30 to 35 min.
5 x 10 x 3-in. loaf— 325°—50 to 55 min.
. . . or until top springs back when *lightly* touched.

Immediately turn pan upside down, placing tube part over neck of funnel or bottle, or resting edges of square or loaf pans on 2 other pans. Let hang, free of table, until cold. Loosen from sides and tube with spatula. Turn pan over and hit edge sharply on table to loosen. *8 to 10 servings.*

*If you use Gold Medal Self-Rising Flour (sold in parts of the South), omit baking powder and salt.

If you live at an altitude over 2,500 feet, write Betty Crocker, General Mills, Minneapolis 1, Minn., for recipe adjustments. Specify recipe.

EXTRA DELICIOUS TOPPED WITH

CHOCOLATE FLUFF . . . Mix together *2 cups heavy cream, 1 cup sifted confectioners' sugar, ½ cup cocoa, dash of salt* in a chilled bowl. Beat mixture until stiff enough to hold a point. Serve on wedges of cake. *Makes about 4 cups topping.*

PEANUT CRUNCH . . . Fold *½ cup finely crushed peanut brittle* into *1 cup heavy cream,* whipped stiff. *Makes about 2 cups topping.*

WHIPPED CREAM is another delightful topping that will give the party "touch" to your Cocoa Chiffon Cake!

"Betty Crocker" and *"Kitchen-tested"* are reg. trade marks of General Mills

IMAGINE! A cake that needs no icing! Here it is—you get a choice of several luscious toppings. Just spoon them on and serve. This unique Betty Crocker recipe calls for only 4 eggs.

Just be sure you use Gold Medal *"Kitchen-tested"* Enriched Flour . . . because Betty Crocker's Cocoa Chiffon recipe is tailor-made for this flour. Don't risk failure!

Each cupful of Gold Medal always acts the same . . . to give you perfect bakings every time.

Good cooks know this. That's why more sacks of Gold Medal Flour are bought than the next 5 brands combined. Each sack contains Betty Crocker tested recipes and a coupon for Queen Bess pattern silverware.

General Mills

From a farmer's notebook

By Leonard Hall

As in any country community, news travels up and down our Belleview Valley, and in and out of the smaller hollows which join it, by way of John Akers, our rural mail carrier. John has carried the mail for no less than a quarter century, yet I've a strong suspicion it is still only an avocation with him, while fox hunting is his real lifework.

"John," I said the other day, when the mail arrived at noon, "have you seen any signs of spring along your way?"

"Well, now," John answered, judicially, "I don't rightly know whether you'd call it a sign of spring, but old man Hanson was sowing oats as I came by his place. That's the first field I've seen sowed this year—and him over 90 years old. Then I heard a gyp fox a-squallin' last night."

I, too, have heard the "gyp" fox, as we Ozarkers call the vixen, a-squalling; and it is by such signs as these that we countryfolk know spring is here again or, at worst, just around the corner. Oats sowing has begun, and the mating season of the red fox is at hand, and young squirrels are already born in their dens in the big oak trees.

For you who live in the northern tier of states, the time is still a while away. Down here in our Ozark valleys, warm rains have already set the "spring peepers" a-singing. This tiny tree frog, called *Hyla crucifer* because of the dark cross on his back, starts making music with the first thaw and, in spite of his minute size, can be heard for a full mile.

Often I wonder why so many of us who live on farms are so little curious about the wonders of nature which are around us on every hand. We wait for the first robin or bluebird to appear in the yard, as does the city dweller, never conscious that they have been with us all winter if we'd taken the trouble to look for them.

These birds are year-around residents in our Missouri country and, except in the severest seasons, winter northward to mid-Iowa and Illinois. It is to the true migrants that we must look as harbingers of spring, yet how seldom do we know the dates on which these arrive or even what they are!

Down along our creek at Possum Trot lies a small swale of low ground, well sheltered by the woods pasture which flanks it. Here during the first days of March we can count on flushing the earliest woodcock of the season and, if

there is opportunity to go back, I'll find a bird or two there each evening during the entire period of the spring flight.

Over by the big pond in the bottom, the jacksnipe come in a week or so earlier—say the last of February. Up in the alfalfa on the high ridge during the second week of March, we can count on seeing the beautiful golden plover, en route from his wintering ground on the Argentine pampas to nest above the Arctic Circle. In his annual flight, he travels far enough to circle the globe.

That same week many migrant songbirds also arrive: the phoebe, tree swallow, red-winged blackbird, and white-throated sparrow, to mention a few.

I do not know what miracles—possibly temperature changes or earlier daylight—tell the birds when to start the spring journey or the little blue-striped salamander of the woodlands when to seek out a shallow pond and lay its eggs. Yet these things doubtless began to happen long before our civilization existed, and they may continue long after it has ceased to exist.

There's one thing we do know—Mama and I—and this is that no spring sign or sound gives us more of a thrill than the northward migration of the waterfowl. You may think, as you pull on boots and sheepskin coat one cold morning and head for the barn to feed, that it is still winter.

True enough, the calf crop is arriving on schedule, and nearly every day finds another white-faced youngster tucked away from the wind in the cedar thicket along the edge of the bluff. You get him to his feet and make certain he isn't chilled, then help him find his way to his first meal. If the morning is sunny, you leave him there in the deep grass or, if it's raw and rainy, carry him in to a box stall, with the cow following anxiously along behind.

That's when you're as apt to hear it as not: the wild, discordant, yet musical cry of migrating geese. And you look aloft to see the wavering V of great birds coming out of the south. Strong wings strike the air with steady beat. A leader sets the course; and on the flanks of the flock fly the outriders, like the "points" of a company of marching infantry. This is when we know spring is really at hand; and I like best the way it was put by my friend Aldo Leopold, the great Wisconsin naturalist and writer, in his *Sand Country Almanac*.

"A cardinal," he wrote, "whistling spring to a sudden thaw but later finding himself mistaken, has only to resume his winter silence. A chipmunk, emerging for a sunbath and finding a blizzard, has only to go back to bed. But a wild goose, staking 200 miles of black night on the chance of finding open water in the frozen lake, can make no easy retreat. His arrival carries the conviction of a prophet who has burned his bridges."

Thus spring comes to our Ozark valley. Soon the creamy-white bloodroot will bloom in the timber—and out in the fields, the Johnny-jump-up and tiny bluet. Small calves will kick their heels with the joy of being alive. And Mama and I will sit with our heads together at breakfast by the kitchen stove, planning all the fine things that are going to happen at Possum Trot this year. **END**

Post-Toasting makes the difference in Freshness, Crispness, Flavor!

"My family's been eating corn flakes for years—but were we surprised by our first taste of Post Toasties!

"They're *different* from other corn flakes—*fresher, crisper,* downright good eating!"

"Post-Toasting" makes the difference! This special process adds *extra* tenderness, *extra* flakiness, *extra* goodness!

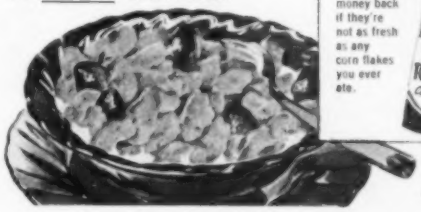
What's more, the new Trip-L-Wrap "Keep Fresh" Package brings you Post Toasties *guaranteed fresh.* Get Post Toasties from your grocer today! They're one of the famous Post Cereals.

**See details on package*

Don't say 'Corn Flakes,' say

Post Toasties

—the BETTER Corn Flakes



A Post Cereal
GUARANTEED FRESH!

Triple your money back if they're not as fresh as any corn flakes you ever ate.

1 Sealed Bag Inside
2 Sealed Carton In Between
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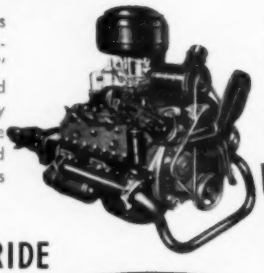
A Product of General Foods

The new Ford Custom Deluxe Club Coupe. White sidewall tires optional at extra cost.

QUIET NEW V-8

It's a full 100 horsepower yet it never raises its voice! New, laminated timing gears are next to silent! New "quiet contoured" camshaft lobes "hush" valve action! New super-fitted pistons are designed to start quietly and run quietly! The one and only V-8 engine in the entire low-price field. It's the same type used in America's finest cars. And matching this great V-8 in quality, Ford also offers the new and brilliant 95 horsepower Six.



"Fashion Car" Style. Inside and out, the new Ford is more beautiful than ever. Fords keep their "showroom complexion"—the finish is baked-on! And for driving comfort, the '50 Ford has new non-sag, front seat construction. But take the wheel—try the "feel" of the one fine car in the low-price field—the '50 Ford!

'50 FORD

NEW HUSHED RIDE

It's a "Mid Ship" Ride, away from the wheels, and it's so quiet you can hear yourself think! That's because the doors, roof and body panels of the heavy-gauge "Lifeguard" Body are "sound-conditioned" against road noise. You'll love the way Ford's "Hydra-Coil" and "Para-Flex" Springs soak up bumps!

"TEST-DRIVE" A '50 FORD
It'll open your eyes!

There's a Ford in your future... with a future built in!

Farmer's Washington

[*From page 8*]

Wallace. Nobody really interested in the farm movement can ignore Henry A. Wallace, whether he likes him or not. Wallace is breaking away from the Communists and neo-Communists in the Progressive Party.

Why? He has discovered suddenly that they are more interested in Russian than in American politics. It has finally come to him that what he means by "progressive capitalism" is nothing like what the people he has been associating with call "Democracy."

That word, "Democracy," to them means Communism. And he is shucking them off. I went up to Farvue Farm where he lives, about 50 miles north of New York City, and had a long talk with Wallace.

Wallace is working some more on hybrid chickens. He will finish up some experiments in four or five years. He is dabbling with hydroponics, trying to find out if there really is anything to a theory that some of the by-products of atomic fission will help plant growth.

And, while he is doing this experimental work, he is also doing a lot of thinking about himself. Item One is that he is proud of his record during the war and knows it has been pretty well smeared. He wants to set the record straight.

The fact is that he did not have anything to do with shipments of uranium to Russia, as charged by Fulton Lewis, Jr. Wallace knows this, the un-American activities committee knows it; and maybe, by this time, Lewis knows it.

Wallace is determined that the public at large will know it. And he is determined that his whole war record shall be well understood by the public as a faithful and loyal discharge of his duty to his country.

Wallace is going to devote a great deal of time to getting that story over. As I listened to him, I began to think about Herbert Hoover. Hoover also came from Iowa. And Hoover was smeared and reviled all over this country for a long time. Today, even the president's economic advisers admit that Hoover's view of what would ultimately happen in this country was right. And now they support the old Hoover view that it is in high production of American farms and industry, not in big handouts from the federal government, that the future of America lies.

A good deal of water has gone over the dam since Wallace first advocated a conciliatory view toward Russia. With changing times, will Wallace win back general public respect in this country the way Hoover has?

If you don't think so, this may surprise you: When the Republican bigwigs last met in Washington, the ones from the Mountain States were lamenting the fact that Senator Glen Taylor of Idaho seems to be making a political comeback.

Who is Taylor? He was Wallace's running mate on the Progressive ticket. The Idaho Republicans lament that they can't get people to come to their political meetings. But the minute Taylor shows up in Idaho, his political meetings are packed with people.

The voting public is pretty fickle. Don't count too much on Wallace's remaining a back number. **END**

MOTHER!

Are your children missing out on the benefits of **NABISCO SHREDDED WHEAT?** It's America's great body-building breakfast because

Nourishing 100% whole wheat! *Hearty* whole wheat! In all its natural goodness, including bran and wheat germ. Ask for the original, one-and-only NABISCO SHREDDED WHEAT — see for yourself why it's the favorite of generations of sturdy Americans!

NATIONAL BISCUIT COMPANY

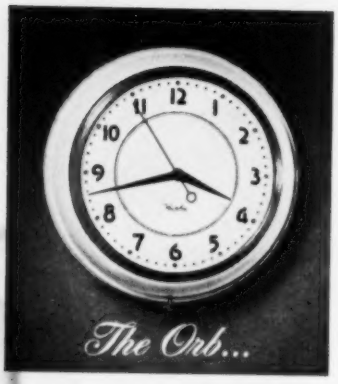
NABISCO SHREDDED WHEAT and MILK will help provide —

- **Carbohydrates**—for ENERGY at study and play.
- **Calcium**—for building STRONG TEETH & BONES.
- **Protein**—for nourishing MUSCLES and TISSUES.
- **Vitamin B_1**—for aiding APPETITE and DIGESTION.
- **Iron**—important for red BLOOD.

GIVE YOUR FAMILY THESE NATURAL BENEFITS TOMORROW!

the breakfast full of **POWER** from Niagara Falls!

Brilliant new electric wall clock by Westclox $3.95



helps keep the farm on time!

IN THE KITCHEN...
Orb will be a wonderful help to mother every day; and she'll be so proud of its smart good looks.

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Orb tells you the time at a glance. Large easy-to-read numerals. A handy help at chore time.

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You know the time all the time when you have reliable electric Orb on the job in your workshop.

"Made by the makers of Big Ben." Dependable. Easy to keep clean because of Orb's simple design and plain face. White, ivory, red or yellow.

Price does not include tax, and is subject to change.

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GT GENERAL TIME

Electric Clocks

MADE BY THE MAKERS OF BIG BEN

Products of GENERAL TIME *Corporation*

A former state delegate tells members

How to earn a trip to the National 4-H Club Congress

Would you like to ride one of the nation's most luxurious streamlined trains, stay in one of Chicago's largest hotels for a week? And during that time be entertained by the country's top screen, radio, and stage stars? Would you like to exchange notes with fellow 4-H'ers from other states and foreign countries, and learn from the nation's top farm leaders?

An experience worth working for? Just ask one of the 4-H'ers who has won a trip to the National 4-H Club Congress. That is, if you have time to listen to him rave on enthusiastically for hours.

So just how do *you* get to a Congress? Well, first of all, it takes work. You must have at least three years of good and faithful project work behind you and also have finished an outstanding piece of work in the field in which your projects tend to specialize.

If your main project is dairy production, how many times has the size of your project increased? How loyal to you are your cows when it comes to putting out milk and butterfat? Sometimes it takes more than a few measly years to build up a good project.

If you've gone in for food preservation in a big way, you will be looking at things from a slightly different angle. How many quarts of fruits and vegetables did you can and how did you and your family benefit by your doing so? Another thing: Has your project proved good enough 4-H material to rate any honors or prizes?

If you're holding up fine so far, you'll want to know how to go about entering this Congress contest. Actually, here is one contest you don't enter. You're *selected* to enter.

"Good deal," you say. "Would it be best to invite the county extension agent out for Sunday dinner or give him a personal interview in his office?"

Neither. Go right ahead working and show your colors and your 4-H spirit. Believe it or not, your county extension agent knows all about your work and what you're doing.

Are you an active 4-H'er, always among the first to volunteer for committee work or other Club tasks? Do you hold an office? When your Club decides to give a three-act comedy, are you in there plugging as the Irish maid or the villain? Such activities will point you out as an energetic, interested, and active 4-H member.

How many times have you stood in front of your Club or Achievement Day gathering and, shaking but in dead earnest, managed to convince them that your demonstration was worthwhile? And how about judging contests? Few activities will teach you as much about your projects in as short a time as will judging. When fair time rolls around, does it find you with your project garment neatly pressed for display, or your fat steer all set for the big moment in the show ring? No 4-H career can be well rounded without such experiences.

Now, with achievements aside, ask yourself this: Have you furnished your mind with plenty of fodder to chew on,

[*Turn to page 87*

By O. Eileen Armstrong

Fred Waring (pictured above) and his Pennsylvanians were popular entertainers at last year's Club Congress. Waring wrote a special song for 4-H'ers, "A Place in the Sun"

B.F.Goodrich

POWER-CURVE CLEATS

This Power-Curve tread cuts down on slippage, saves on fuel, saves time in the fields and you may get up to an extra year of wear.

outpull other leading tires

HERE'S the new 1950 tractor tire that gives you more power, more traction and more wear. In hundreds of tests in different parts of the country this great new tire outpulled and outwore other leading makes!

New kind of tread

The B. F. Goodrich tire with Power-Curve cleats has a tread based on a new principle of design. The cleats are curved according to a mathematical formula so that the distance between cleats is the same from tread center to the shoulders. Only when you have this exclusive feature do you get maximum self-cleaning combined with maximum power.

Power-Curve cleats are higher. They are tapered for a deeper bite. They're curved so they won't bend. Higher cleats give you greater wear. Thousands of farmers have praised BFG tires for long wear. Now, Power-Curve tires give even longer wear. There's more rubber in the tread. Sidewalls are reinforced. Many farmers will get as much as an extra year of wear!

Compare the 3 leaders

Don't take our word for it. Before you buy tractor tires examine carefully the tread designs of the leading tractor tires. If you have an opportunity, watch all 3 perform. We think you'll select the B. F. Goodrich Power-Curve tread on every count—traction, cleaning, long wear, smooth ride and economy. *The B. F. Goodrich Company, Akron, Ohio.*

How to save on truck tires

All B. F. Goodrich truck tires with 8 or more plies are built with the exclusive nylon shock shield. Extra strong nylon protects the cord body. You save by getting higher average mileage, less danger of tread separation, greater bruise resistance, more recappable tires.

DURING THE MONTH of March, you are primarily concerned with preparations for the crop season—purchasing quality fertilizer best fitted to your soil and individual crop requirements—selecting seed known to produce maximum crop quality and yield in your locality. Your machinery is being inspected for needed repairs and possible replacements in preparation for a busy planting season ahead.

We suggest that you use the same judgment in the selection of quality insurance and the same care in determining your needs for protection against the hazards of fire, windstorm, lightning, hail, explosion, and vehicle damage to your buildings and personal property.

The local America Fore agent will gladly assist you in determining adequate amounts of insurance to be carried on both buildings and personal property.

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It's all in how you look at it

—A bit of philosophy for living happily when things aren't so rosy

By Ceryl Cupp

Recently I visited a friend who had been sick. She remarked: "My sickness did me some good anyway. I learned to take it easy while my family did the work." Then she laughed. "I also learned what a beautiful place my bedroom can be."

I smiled.

"Yes, there's nothing like a good bed when one is sick."

"Oh, I don't mean that," she answered. "You know my bedroom is naturally dark. Whoever plastered it didn't know his job very well, so there are plenty of humps. At first I thought I couldn't bear to lie there looking at such a drab ceiling. Then I began to see things in it—pictures formed by the light and dark streaks, with the humps. You'd be surprised at all the pictures I found on my bedroom ceiling. Some were really beautiful."

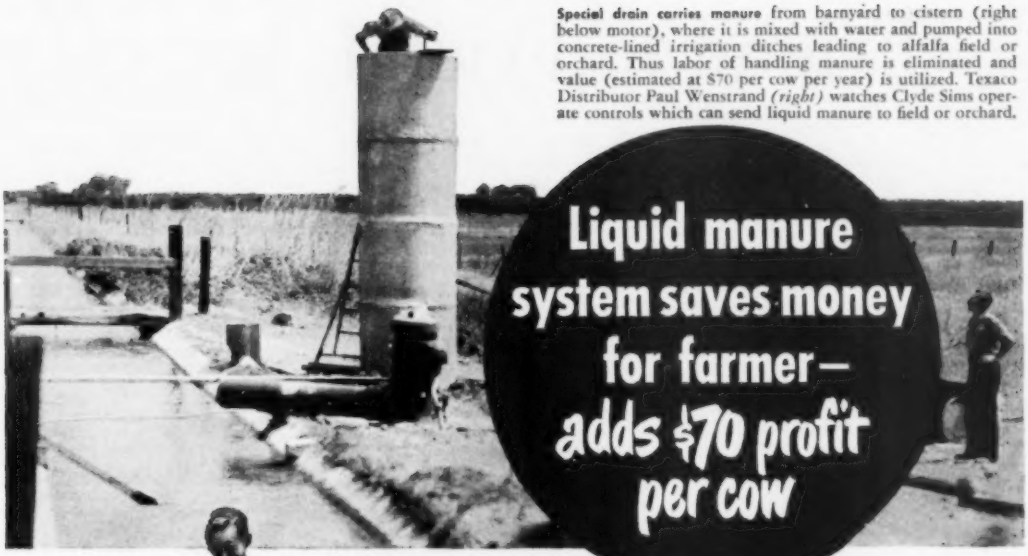
This episode reminded me of another friend who had at last succeeded in finding a house for her family. She was so enthusiastic about their having a real home at last, by themselves. But when I visited her soon after they moved, I received a shock. Such a house! Small, dark, much in need of repair. But to my friend's eyes it was beautiful. Beautiful—not for what it was then, but for what it meant to the family, and what it might become in the future. She clothed it with beauty because she saw it through the eyes of love—and hope.

There is a great deal of real beauty in this world of ours. Let us learn to take this beauty deep into our souls, to store it there for future use. So that when we come face to face with some really drab situation, we can draw on our own storehouse of beautiful thoughts and memories, thus spreading beauty where there was none before.

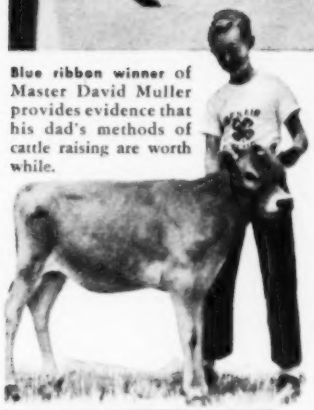
I am sure my friend, and her family, did their best to make the old house come alive. Probably they gave it some real touches of beauty, visible to everyone. And my other friend can have her bedroom papered and redecorated. They, and we, must do our best to bring visible beauty where it was not before. But we must first possess this ideal of beauty in our souls. Then if we are in a situation, for the time being at least, where we cannot actually improve the outward beauty of things, we can still make them beautiful from within ourselves. For if we do not possess the power of this inner beauty, all the outer beauty the world may contain will not make us happy.

So let us do our best to make our surroundings and our lives outwardly beautiful. But if we cannot, then let us clothe them from the rich storehouse of our minds, and live in beauty always. **END**

Special drain carries manure from barnyard to cistern (right below motor), where it is mixed with water and pumped into concrete-lined irrigation ditches leading to alfalfa field or orchard. Thus labor of handling manure is eliminated and value (estimated at $70 per cow per year) is utilized. Texaco Distributor Paul Wenstrand *(right)* watches Clyde Sims operate controls which can send liquid manure to field or orchard.



Liquid manure system saves money for farmer— adds $70 profit per cow



Blue ribbon winner of Master David Muller provides evidence that his dad's methods of cattle raising are worth while.

With prize-winning ribbons in his belt, young David *(center)* modestly receives the congratulations of his father, Mr. Carl W. Muller *(left)*, and Texaco Distributor Paul Wenstrand *(right)*.

ONE of the toughest jobs on a dairy farm—collecting and distributing manure to the fields—has been completely mechanized, as shown above, by Mr. Carl W. Muller, outstanding dairy-orchard farmer near Turlock, Calif.

It is not surprising that keen farmers, like Mr. Muller, who understand the problems of mechanization, find that *it pays to farm with Texaco Products.*

Lesson in lubrication: John Odom, helper on the J. A. McCarley farm near Greenville, Texas, gives his young son the proper training—with Marfak, the lubricant that sticks to the job longer, won't wash off, melt out, jar off or cake up.

Texaco tire service: Texaco Man C. D. Gipson, assistant to Mr. C. D. Daniel of Greenville, Texas, rolls up a new tire as Farm Superintendent J. C. Abbott *(left)*, of the McCarley farm, supervises the change. This is a typical example of Texaco farm service.

Fire-Chief gas with superior "Fire-Power" is going into the tank of Mr. Harold Huffman, prominent farmer near Alvin, Illinois. Master Arthur Huffman *(left)* watches Texaco Man E. C. Woodrum, of Bismarck, Illinois, fill the tank.

TUNE IN . . . METROPOLITAN OPERA broadcasts every Saturday afternoon. See newspaper for time and station.

TEXACO

THE TEXAS COMPANY

IT PAYS TO FARM WITH TEXACO PRODUCTS

DIVISION OFFICES: Atlanta 1, Ga.; Boston 17, Mass.; Buffalo 3, N. Y.; Butte, Mont.; Chicago 4, Ill.; Dallas 2, Tex.; Denver 1, Colo.; Houston 1, Tex.; Indianapolis 1, Ind.; Los Angeles 15, Calif.; Minneapolis 2, Minn.; New Orleans 6, La.; New York 17, N. Y.; Norfolk 1, Va.; Seattle 11, Wash.

Texaco Petroleum Products are Manufactured and Distributed in Canada by McColl-Frontenac Oil Company Limited.

Friend to Friend

Surplus power

Is your tractor ready for the spring rush? American agriculture is distinguished the world around for the enormous quantities of power it uses. But that isn't saying there are no cases where farmers need more power.

Many found it impossible to operate their pickers last fall in down corn. Plowing was neglected in many dry sections because the tractors could not handle the plow equipment. Should we have a late spring, the need for surplus power will be vital to the production of a good crop.

In our pressroom the other day, I asked the superintendent how many horsepower were required for one of the four-color presses. When he replied 125, I asked him why not 100? He said that they could operate with that power, but would have no reserve for emergencies. The conversation set me to thinking about farm power. Many tractors built to deliver a specific horsepower are not doing it for lack of conditioning and repair. A few days fumbling around with an inefficient tractor can mean disaster with a crop.

As a youngster, I was impressed by the success of our German neighbors, noted for the many large draft horses they used in their fields. In other words, they had ample power, as compared with their neighbors who attempted to use broncos and ponies for work horses. The horse has gone, but the necessity for adequate power in farming remains and increases in importance.

Your particular situation may call for large or small tractors, or a combination. Regardless of the way which you find best suited for your farm, you face the necessity of having a little surplus power always available. Underpowered farms are inefficient units always.

Confusion over APF

Now and then a reader writes to ask how he can tell whether the feed he is buying contains the right amount of APF (animal protein factor) to do the job claimed by the manufacturer. These letters reflect the interest that owners of herds and flocks are taking in the discovery that the addition of APF—produced by fermentation processes—to some of our rations can give amazing results in the feedlot.

These questions are good ones, and they are not too easy to answer. So many different forms and concentrations of APF are being sold to feed manufacturers and mixers that not even an expert can tell whether the person or company making the feed has added enough.

Probably the best answer is for the buyer to consider the reliability of the company selling the feed. Good operators have a reputation to maintain, while the fly-by-night or marginal operator has but little to lose.

Like most new things, there's much misunderstanding about APF. This is true not only of farmers but also of many feed manufacturers and custom mixers as well. Some have the notion that APF and soybean meal can replace only part of the proteins from animal sources (such as tankage, meat scraps, and fish meal). But one of the nation's leading swine nutritionists points out that, according to present experimental evidence, the APF-plant protein combination can replace the entire combination of nutrients found in animal proteins. However, when the animal proteins are removed, other nutrients in the ration may have to be adjusted, primarily calcium and phosphorus.

One big mistake is to regard APF as a miracle feed. It isn't. And sanitation, sound management, and good breeding are just as important as before.

Some manufacturers, especially during the earlier months while "factory-made" APF still was hard to get, advertised with the inference that they had put APF into their feeds. Actually their feeds contained only the natural sources that they previously had, with nothing extra added. State feed-control officials, to meet this situation, modified their requirements on listing of ingredients on the feed tag.

News concerning the value of APF has spread so rapidly that it's easy to assume practically every farmer knows about it.

To keep things straight, it might be well to explain that APF is not a protein, but rather a vitaminlike substance. In that respect, the name, "animal protein factor," is misleading.

Furthermore, feeds with animal proteins have always had APF—the natural form. The real news is that APF is being made by fermentation processes and can be added to rations, replacing expensive and often-scarce animal proteins.

We're not through hearing about APF. Research men are working feverishly, for there are still more questions than answers. *Successful Farming* will keep you informed as things develop.

Off Mother's shoulders

Quantities of electricity used on Midwest farms have been increasing rapidly for 30 years and yet there is no sign of their leveling off! In a study of 460 Iowa farms, the U. S. Department of Agriculture found increases of 10 percent each year between 1938 and 1948. Consumption rose from 900 kilowatt-hours to 2,550 kilowatt-hours.

Where I get excited is in the way farm homes are going after electricity. Eighty percent of the 2,550 kilowatt-hours is being used in the households. Only those who remember the farm home of 30 years ago can fully appreciate the load that has been lifted from the farm mother's shoulders. And the comforts and conveniences of farm homes have increased enormously with the greater use of electricity. The time and strength thus saved will be reflected in happier homes and better communities.

Kirk Fox

"I am the grass...let me work"

Let me work the miracle of changing soil and water, sunlight and air into a living, growing plant. Let my roots reach into the good earth to gather calcium, phosphorus, other minerals and nutrients. Let me store these growth elements in my leaves and stalks. Thus I become the source and supply of food for livestock. When eaten by grazing animals I become bone and flesh, hide and wool. I become meat and milk, man's finest protein foods . . . foods that develop the body and mind of man . . . that contribute greatly to the energy, initiative and wealth of America. Let me work on the 779 million acres of America's grassland . . . much of it land that can produce little else of food value.

In the expansion of our livestock-grass economy lies a hope for an adequate meat diet for our growing population. Through meat animals you can utilize grass and roughages to create quality protein foods for human use . . . and 80 per cent of the growth elements in grass that is grazed is returned to the soil as manure. Grass also works to increase food production in other ways. It protects our productive topsoil from wind and water erosion . . . holds moisture in the soil . . . helps restore and maintain organic matter. Grass works to keep America fertile.

To increase the amount of grass and numbers of livestock is a problem. But it can be done. More and more livestock producers are finding that it pays to pay attention to their grass. There are farmers and ranchers who are producing 400 to 600 pounds of beef per acre on good grass alone. Hog raisers are finding that good alfalfa or rye pasture is worth $50 an acre, and more, in other feeds saved. The same with sheepmen. Dairy farmers find that grass can be worth up to $169 an acre to them. It is roughly estimated that the value of the grass that goes into the production of meat and dairy products is close to $5 billion a year. County agents, experiment stations, conservationists and colleges are doing great work in improving grasses and grass management practices. They can help you make more from your grass no matter where you live.

Again I say—I am the grass, let me work. But give me a helping hand. Let me grow in place of worthless weeds and brush . . . on land that never should be cropped. Put me back on land that never should have seen the plow. Give me lime, fertilizer, water and care, and I will work hard for you. Let me work for you as your humble but mighty friend.

Soda Bill Sez:

I'd rather make a living on my own hook, than hook the taxpayers for my living.

OUR CITY COUSIN

At our local livestock sale
City Cousin turned quite pale
Because, you see, he scratched his ear
And right then—he owned a steer!

BIG does not mean BAD

It takes a big ship to carry a big cargo. It takes a big locomotive to pull a heavy train. It takes a big industry like yours and mine to do the big job of feeding America and a lot of the rest of the world. It takes big companies as well as little ones to keep that industry operating efficiently.

I firmly believe that the nation needs nation-wide meat packers, such as Swift & Company. The continuous research and education, and the complete utilization of by-products, which our size makes possible, are valuable services to the nation and its people. We help to bring the advantage of a nation-wide demand to livestock producers. We help to provide consumers everywhere with the kinds of meat they want.

Our industry is highly competitive. There are 4,000 meat packers, and over 14,000 other commercial slaughterers of livestock. We must buy our animals in competition with all those other buyers. In the face of this competition, the only way we can stay in business is by efficient operation. We must keep our costs down. This efficient operation and economy of mass production lets more people eat more meat oftener.

I am sure that American agriculture, of which we are a part, can meet the needs of our growing population which wants and should have improved diets.

But we shall meet these demands only if we continue to nurture and encourage enterprise, ambition, and success. Only if we have the faith and courage to work and fight to create our own success. Let us, then, be careful not to confuse the issues. Let us condemn and eradicate evil practices wherever we find them, whether in big industries or small. But let us, and all Americans, realize the danger before we attack enterprise and success—lest we destroy not only the industry and civilization we have created, but also the hope and the heritage of our world for generations to come. * * *

The above message is from the speech of our President, Mr. John Holmes, before the American National Live Stock Association at Miami. I have quoted it here because I believe that it will be interesting and encouraging to the millions of livestock producers who were not able to be at the convention.

F.M. Simpson
Agricultural Research Dept.

Swift & Company
UNION STOCK YARDS, CHICAGO 9, ILL.

Nutrition is our business—and yours

TREATED SEED OATS ARE POISONOUS TO HOGS

by E. F. Ferrin
University of Minn.
St. Paul, Minn.

E. F. Ferrin

Surplus seed grains which have been treated with a fungicide may be a dangerous feed for livestock.

Oats treated with Ceresan M. were fed to growing pigs at the Minnesota Experiment Station. Pigs were fed only treated oats and water. The grain was not palatable and the amount of oats eaten for a week or 10 days was less than that of untreated oats consumed by similar pigs. After 10 days of feeding, the pigs ate little of the treated oats, lost weight and from 15 to 20 days after the start of feeding, became sick. The first symptom was a weak and unsteady gait followed by scouring and vomiting. Some of the pigs seemed to become dizzy and turned circles in the pens. They usually became blind and paralyzed before dying. All of the pigs fed treated oats died except two, which were kept on this feed only 10 days. Deaths from mercury poisoning occurred from 25 to 31 days after starting to feed the treated oats.

To see if it is worth while to try to salvage treated seed oats, they were mixed with good feeds at the rate of 15% in one case and 30% in another. The pigs did not show symptoms of poisoning. But they gained weight so slowly, and required so much feed, that it was an expensive method of feeding.

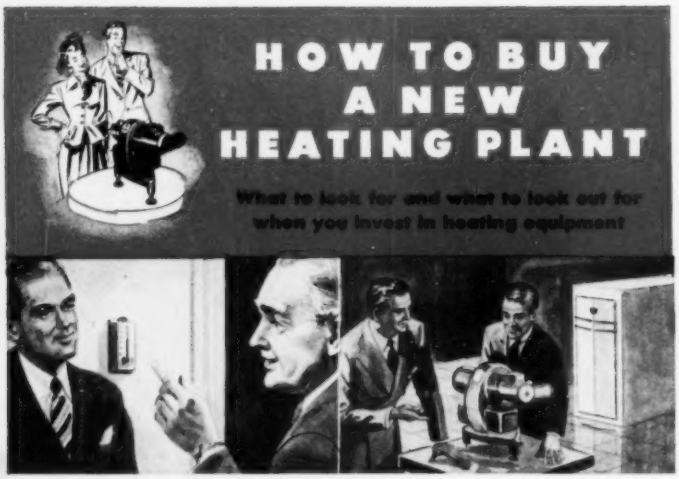
RECOMMENDATION No. 1: *Never force pigs to eat such grain. It is cheaper to burn it.*

RECOMMENDATION No. 2: *Always inform a prospective buyer of seed grain if it has been treated with a fungicide.*

Martha Logan's Recipe for HAM SCRAPPLE

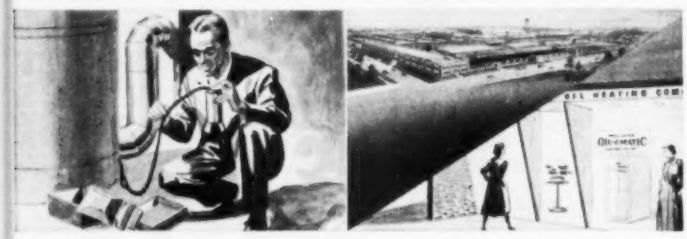
(Yield: 6 servings)
2 cups ground smoked ham
1 cup corn meal
1 tablespoon sugar
½ teaspoon salt
2½ cups boiling water
½ cup milk
1½ tsp. prepared mustard
Shortening or ham drippings

Mix together corn meal, sugar, and salt. Add slowly to boiling water and milk. Cook slowly in heavy pan, stirring occasionally, about 20 minutes. Add ham and mustard and mix well. Pack into loaf pan. Chill. When cold and firm, slice in 1-inch slices. Fry slices in quick-mix type shortening or drippings until brown on each side.



MAKE A CHECK OF USERS . . . Ask about operation, cost and whether good service is provided. Although there are hundreds of makes to choose from, every 8th oil burner is an Oil-O-Matic. That's a good sign of *how good Oil-O-Matic is!*

BE CERTAIN HEATING UNIT IS LARGE ENOUGH . . . (but not too large). Oil-O-Matic has a *complete line*—all sizes for all types of heating. Your Oil-O-Matic dealer doesn't have to "sell" or "push" one model. He will see that you get the *right* equipment.



INSIST ON A CAREFUL SURVEY . . . made by a skilled expert with the proper *tools, meters* and *devices* to insure perfect installation. Oil-O-Matic dealers are factory trained in Fuel Conservation Engineering, use an approved system for making surveys. You can depend on it.

MAKE SURE THE MANUFACTURER AND DEALER STAND BACK OF YOUR INVESTMENT . . . 30 years of Williams Oil-O-Matic leadership is your proof! Over 90% of the Oil-O-Matics installed in the last 20 years are still in operation — giving trouble-free satisfaction.

FREE! to home owners

Winter Air Conditioners — Steel Boiler-Burner Units — Cast Iron Boiler-Burner Units

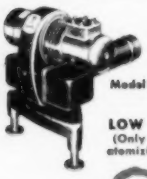
...for homes of all sizes...for all types of heating

NEW BUYER'S GUIDE TO ECONOMICAL COST AUTOMATIC HOME HEATING

FACTS • COMPARISONS • PROOF

Know the facts about new engineering—amazing advancements—before you buy any heating equipment. You'll find the answers to your questions in this easy-to-understand booklet.

YOUR OIL-O-MATIC DEALER is listed in the classified phone book under "Oil Burners."



NEW Model Fifty Ten...

LOW PRESSURE (Only 1 to 2 lbs. atomizing pressure)

Only WILLIAMS OIL-O-MATIC OIL BURNER Has it!

MAIL COUPON TODAY!

To: Williams Oil-O-Matic Division
Eureka Williams Corporation,
Bloomington, Illinois

YES! We want to know the facts. Please send "There is a Big Difference in Oil Burners."

NEW DEVELOPMENT BRINGS AUTOMATIC HEAT WITHIN REACH OF ALL!

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Address _____
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NO COST! • NO OBLIGATION!

SF-3

What *do you think?*

YOUR LETTERS TO US

Soil loss from laying pipe lines

To the Editor: I come to you with a new problem. Modern times are bringing pipe lines across our farmlands. We farmers are progressive and are allowing the lines to cross our lands in order that our fellow townspeople may be served.

Pipes carrying natural gas go past our door, yet we cannot hook on to the lines to enjoy the conveniences. And we are left with a scar on our land where the topsoil has been pushed two feet under and the sand is left on top.

It is this that I am puzzled about. How much should I receive from the people laying the pipe line? When they finish laying the pipe on our farm, we will lose the topsoil which it has taken us 10 years to build up.

The pipelaying company has agreed to pay for all damages. However, in summing up the soil loss, they figure that all that is necessary to put the land back in shape is to plow it up and seed it. In my own mind, I know that the lost topsoil cannot be brought back by merely planting 30 pounds of alfalfa seed on it. I have talked to many of my neighbors and find that they settled on this basis and now they are dissatisfied.

The land will need so much lime, potash, and phosphate that it will have to be worked for about five years before it will be as good as the ground beside it.

Reseeded alfalfa will not become established much before the rest of the field should be plowed under. This represents a loss of six cuttings of hay where the pipe line crosses.

I'm anxious to hear from you and am sure many of your readers will be glad to read your comment on this subject.

—*Anthony Sabo, Fremont, Michigan*

● No matter how public-spirited farmers are, they should be paid for damages incurred by a pipe-line project, especially since it does not benefit the land it crosses. Certainly, damages to your farm are more than 30 pounds of alfalfa seed and the cost of seeding it.

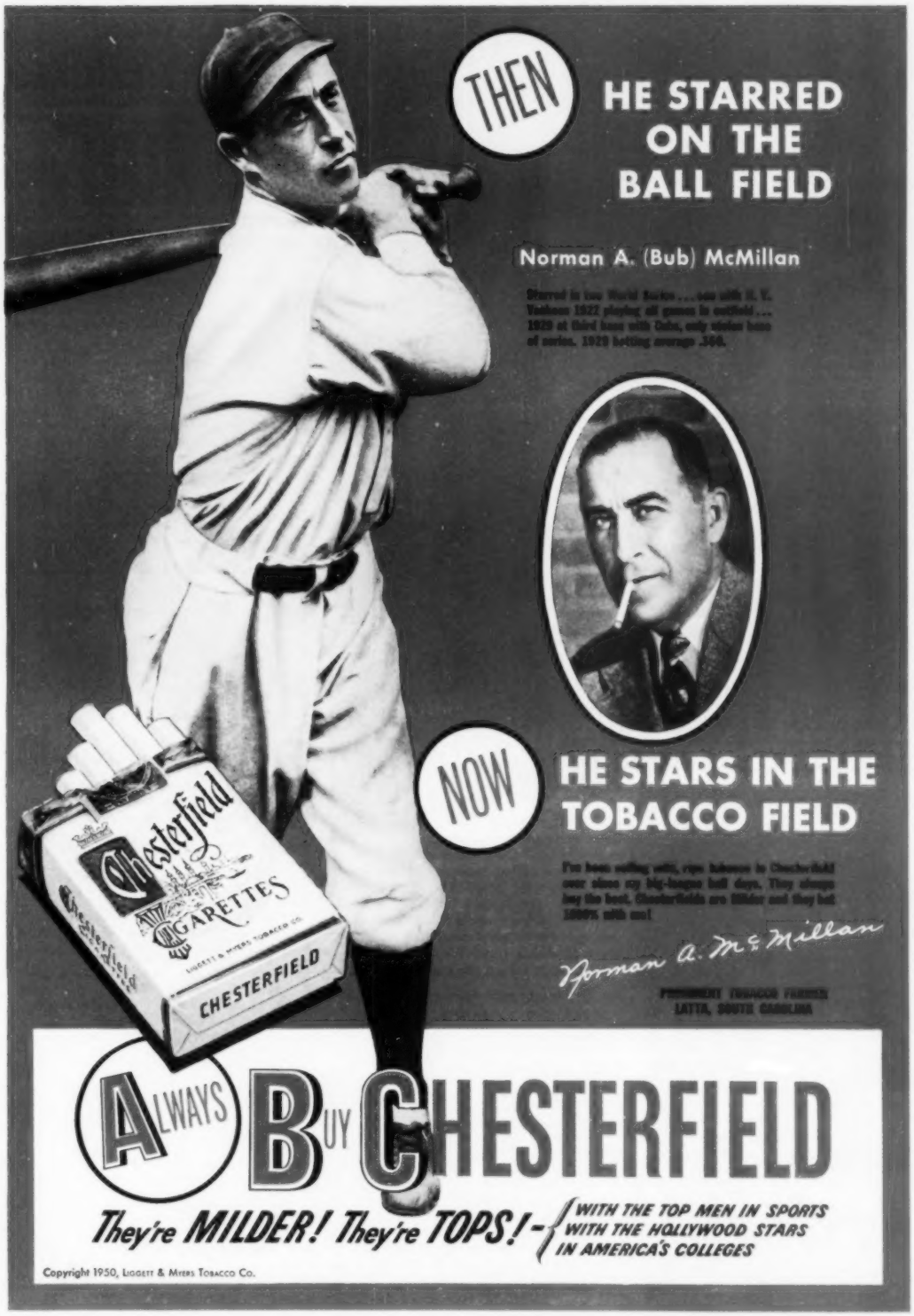
I suggest you appeal to your local farm organization, the Farm Bureau or the Grange, in an effort to organize the farmers affected by the pipe line. Farmers organized behind a united front have real bargaining power in dealing with a situation such as this.—Editor.

Wasted money

To the Editor: I have just finished reading your article on soil conservation in the January "Friend to Friend."

Many of the farmers here in Adams County, Indiana, are encouraged by the conservation stand taken by farm magazines and agricultural colleges recently.

[*Turn to page 24*


THEN
HE STARRED ON THE BALL FIELD
Norman A. (Bub) McMillan
NOW
HE STARS IN THE TOBACCO FIELD
Norman A. McMillan
Chesterfield
CIGARETTES
CHESTERFIELD
ALWAYS BUY CHESTERFIELD
They're MILDER! They're TOPS! - WITH THE TOP MEN IN SPORTS WITH THE HOLLYWOOD STARS IN AMERICA'S COLLEGES
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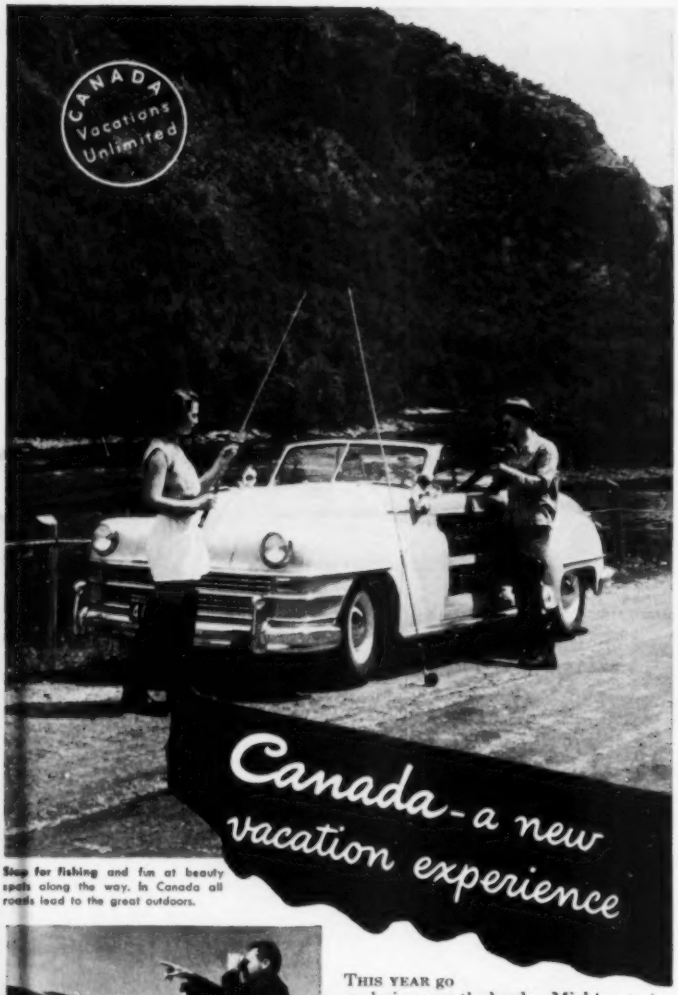

Stop for fishing and fun at beauty spots along the way. In Canada all roads lead to the great outdoors.

Plan a carefree holiday afloat, sailing picturesque inland waterways rich in the romance of Canada's past.

Or enjoy a motoring vacation through exciting new country. You'll find a warm welcome everywhere.

THIS YEAR go exploring over the border. Mighty coasts, the lake-studded spaces of National Parks, friendly cities where a touch of "foreign" atmosphere adds flavour to your sightseeing and shopping—all invite you to an away-from-home holiday. Start planning now. Write for detailed information, or use the coupon below.

7 VACATION POINTERS—ALL POINTING TO CANADA IN 1950

1. New, interesting—"foreign" atmosphere. 2. A million square miles of scenic playground. 3. Friendly cities, hospitable people. 4. Friends and relatives waiting to welcome you. 5. Lots to do—sports, recreation, sightseeing. 6. Near—easy to get to—no border "red tape". 7. Your vacation dollar buys more, goes further.

NO PASSPORT NEEDED

CANADIAN GOVERNMENT TRAVEL BUREAU
Ottawa, Canada D. Leo Dolan, Director
Please send me your illustrated book, "CANADA, VACATIONS UNLIMITED"

Name .....

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CIS0850B2 (PLEASE PRINT)

What do you think?

[*From page 22*]

During the last 10 years upward of 3 million dollars has been distributed in our rich county. We know that it cost upward of 5 million dollars to pass out this money. A considerable proportion of this was spent for luxury and nonessential goods of no permanent value. Little of it went for conservation purposes.

In the meantime, our schools, churches, and county roads have depreciated badly. School busses have difficulty picking up children and the schools are crowded.

The money wasted for so-called conservation, if locally collected and sensibly spent, would have made Adams County a model farm community.

—*V. L. Baltzell, Decatur, Indiana*

Send *Successful Farming* overseas

To the Editor: Last summer I mailed two *Successful Farming* magazines to our U. S. library in Rome, Italy, in care of the embassy. I received grateful appreciation from the library and later a nice letter from an agricultural student in Rome. Since then I have mailed him personally three additional issues.

I urge that other readers of your magazine send a few copies of *Successful Farming* overseas. It doesn't cost much, and it gives Europeans a good opinion of us.

—*Mrs. Harry Babcock, Dowling, Michigan*

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16—Allison Lighthall
30—Les Richardson, Hugh Curtis
34, 35, 84—Marion Pease
36, 37—Drawings, Harrie Wood
38, 39, 109, 110—Richard W. Hufnagle
41—Charles Kuoni
42—Jim Roe
44, 45—Wesley Bowman
46, 47—Marion Pease, Dick Hanson, George Harrison, James Boyd, C. E. Hughes, Bert Kruse
48—Drawings, Gifford Hiser
50, 51—Pagano, Inc., William F. Howland
52, 53—Stanley Studio
55, 56—Stanley Studio
68, 144—Stanley Studio
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114, 115—Ken Johnson
118, 139—Drawings, Harry Richardson
124, 125—Photograph, Harold Beaty; drawing, Associated Artists
128—Walter J. Hunt
132—Harold Severson, A. M. Weltach, Hi Sibley, June Patchett
134—C. E. Hughes
140, 141—Stanley Studio
158—Marion Pease
164, 165—Richard W. Hufnagle
170, 171—Singer Sewing Machine Company, Greist Manufacturing Company
174—Drawings, Associated Artists
176, 177—Soil Conservation Service
179—E. G. Champagne
180—George A. Hormel Company
184, 185—Eleanor Gilman
187—E. J. Erickson
188, 190—Iowa State College
194—E. B. Winner
198—Walter J. Hunt

INSIDE...

OUTSIDE...

FRONT...

REAR...

ENGINEERS, TRAFFIC EXPERTS, STYLISTS ENTHUSE! "Dodge advanced engineering makes the big difference," exclaims D. C. Adamson, New York engineer. Traffic experts laud Dodge handling ease . . . stylists hail Dodge beauty.

Nothing will thrill you like this year's DODGE!

You could pay a thousand dollars more and still not get all the *new beauty*... *extra room*... *and famous ruggedness* of Dodge

BIG, RUGGED, smarter than ever, this year's new Dodge gives you *still more* for your money.

Inside, you get the roominess of cars costing much, much more. You get head room, leg room, hip room so you can sit naturally, ride comfortably all day long.

Outside, Dodge compact design gives you the edge in parking, in busy traffic.

Out in *front*, a sleek new grille enhances Dodge well-bred beauty. While in the *rear*, there's a huge new "picture window" for safer vision.

See and drive the new Dodge. Feel the surging power of the big "Get-Away" Engine—the smoothness of Fluid Drive.

BIGGER VALUE! New rear "picture window" for safer vision. Wider rear tread means better road stability, greater safety and comfort for you.

"For my money Dodge is the best engineered car on the road"
says
G. H. Knipp
Los Angeles
Engineer

THIS YEAR... step in, step out! No crawling through "dwarf-size" doors when you enter or leave. Doors open wide... you step in or out without squirming.

THIS YEAR... drive without shifting! With Dodge Gyro-Matic you can drive all day without shifting. (Optional at moderate extra cost on Coronet models.)

NEW BIGGER VALUE

DODGE

Just a few dollars more than the lowest-priced cars!

What's new in homemaking

Golden trumpet salt and pepper shakers are authentic replicas of the huntsman's horn, an accent for

table or sideboard that will retain a "brand-new" look for many years. The gleaming metal finish—mirror-bright brass for the "horn" and satin-silver finish for the "mouthpiece"—is both tarnishproof and durable. The inner container of crystal glass is completely hidden. Just under 3 inches tall and gift-boxed in pairs, the matched shakers are $1 postpaid. From *Spencer Gifts, Atlantic City, New Jersey.*

The can opener you have always wanted but couldn't find is this automatic and lid-lifting one. No danger

of cut fingers or of a lid falling into the can, for the magnetic arm holds the lid in place. Built by Swing-a-Way, the can opener is finished in satin-smooth cadmium. Comes complete with 3-lock-position bracket. Postpaid, $3.49, from *Horace Anderson's Giftcraft, 1234 E. 47th Street, Chicago 15, Illinois.*

Add coffee and water to Mirro-Matic's new and automatic electric percolator. An automatic thermostat controls the 600-watt heating element and changes it to a 30-watt warming element when the coffee has percolated. Thermostat automatically compensates for varying amounts of water; 4 to 8 cups may be prepared with equally good flavor. Of

polished aluminum, at department and hardware stores for $12.95 East, $13.95 West. Or you may get it postpaid from *Aluminum Goods Mfg. Co., Manitowoc, Wisconsin.*

Sparkling cake cover set, large enough to accommodate those big cakes or a rack of pies. It's feather-light and, best of all, practically non-breakable. The cover is molded of Styron, which retains its sparkling beauty for years and is safe to wash in the hottest water. Sets have crystal-clear covers with trays in red, yellow, pastel green, or ivory. In de-

partment stores and national chains at $1.98, or C.O.D. from *F. & R. Lazarus Company, Columbus, Ohio.*

Fry-Master pressure pan fries small or large quantities of food to real perfection. It ends frying odors

and spattering of grease, cuts down on the use of frying fats, has the advantage of quick-cooking under pressure. Cast from durable simalloy (aluminum alloy), Fry-Master is 6½ inches high, 11½ inches in diameter. Available at department, hardware, appliance stores, or postpaid, $16.95 (slightly higher West), from *National Pressure Cooker Company, Eau Claire, Wisconsin.*

The decorator's touch invades the bathroom! These soft, velvety floral designs in true-to-nature colors are done in relief, life-size. Choose

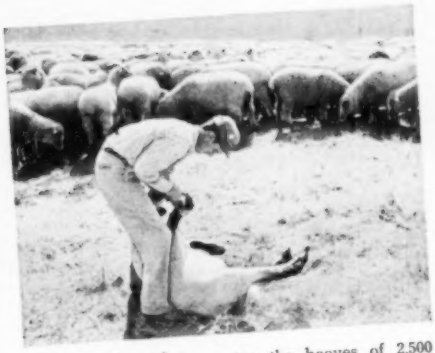
your favorite from violets, carnations, roses, camellias, or azaleas. Same floral motif on bath towel, hand towel, and washcloth. Available in open stock or boxed. Four-piece set at $5.95; 6-piece, gift-boxed at $9.95. At department stores, or write *Calloway Mills, Inc., 295 Fifth Avenue, New York 16, New York.* [*Turn to page 60*

STANDARD

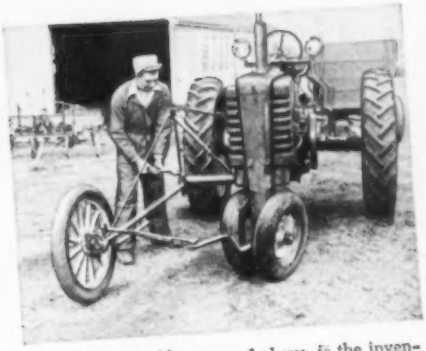
FARM NEWS-GRAPHIC

A picture review of successful farming brought to you by the Standard Oil Company

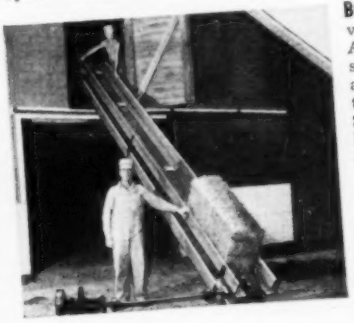
His hobby, horses! Chester Umholts of Earl Park, Indiana, took blue ribbons for the performance of his fine Belgian team at the Illinois, Indiana, and Ohio state fairs, and reserve award at the National Belgian Show. Mr. Umholts raises certified corn, oats, and soybeans for seed on his 720-acre farm. "Blue ribbons should go to Standard Heater Oil, too," he said, as he put his team through some fancy hitches.



Ten thousand feet! Inspecting the hooves of 2,500 sheep is a necessary chore at Meadow Lark Farms, near Campbell Hill, Illinois, but that's important for profitable care of the huge flock, says Keith Thompson, farm manager, shown manicuring one of the sheep. He says Permalube Motor Oil and Standard Red Crown are his choice for the best care and profitable operation of his farm equipment.



Tractor furrow guide, pictured above, is the invention of Bernard D. Laue, of Kearney, Nebraska, who says the device keeps the tractor in the furrow and eliminates most of the work involved in steering. He and his father, Sam Laue, work 600 acres of their 1,000-acre farm. They've used Standard Red Crown Gasoline for years, and declare it cuts fuel costs and gives top performance.



Bumpus' crop! "Before a bale conveyor that suited me was invented, I designed and built this one," says Earl Bumpus of Arcola, Illinois. "It saves two men's work at haying time. And speaking of saving time, I'm sure glad gasoline and motor oil were available before I started farming these 490 acres. Otherwise my two boys and I would need more hands," he added, in speaking of Standard Red Crown Gasoline and Permalube Motor Oil which he has used for years. He is pictured operating the conveyor with one of his sons.

Your Standard Oil Man

A Pattern For Family Fun Only Acrosonic Can Provide

The World's Most Exquisite Spinet Piano . . . Made by Baldwin

No finer foundation for a well-knit family group than sharing the joy and understanding of music that an Acrosonic brings into your home. Even if you have no piano players now, child and adult alike develop ability quickly with the exquisite Acrosonic. The beauty that waits within becomes more apparent with each step in progress . . . a constant reward for practice, a never-ending source of inspiration. Ask your dealer about the exclusive Acrosonic scale and famous "full blow" action. Ask him or write us for our booklet, "Planning Your Child's Future."

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BALDWIN
ACROSONIC
HAMILTON & HOWARD PIANOS
BALDWIN ELECTRONIC ORGANS

THE EXQUISITE Acrosonic BY BALDWIN

all around *the* house®

Here are tips to help you save yourself some time, steps, and work

● An ordinary medicine dropper comes in handy when I'm planting tiny seeds. Taking off the rubber bulb, I pour the seeds into the dropper. Then, when the bulb is replaced, they can be dropped evenly into the ground without danger of their being scattered and lost.—*Mrs. A. B., North Dakota.*

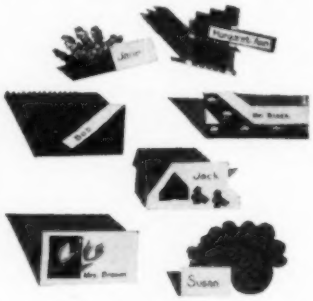
● **To make a handy measuring stick for laying out rows in the garden, I have painted my hoe handle with three red circular stripes. The first is at six inches, the next at one foot, and another at three feet. —*Mrs. G. R., South Dakota.***

● To prolong the life of a new broom, cut a 3-inch band off an old inner tube and stretch it over the straws at the stitching. You'll find this band will help your broom retain its shape.—*Mrs. A. T., Minnesota.*

● **When hemstitching by hand, try wrapping a piece of colored paper around the index finger of your left hand. This will make the threads show up better.—*Mrs. D. H., Nebraska.***

● Altering a garment by taking in or letting out the seams is always easier if it's possible to stitch the new seam before ripping out the old one. This saves basting and assures the proper matching of edges.—*Mrs. H. S., Ohio.*

● **If you aren't good at painting or drawing and want to decorate place cards for your party, try cutting flowers and gay designs**



from ordinary dress fabrics and pasting these to the cards for a decorative touch. —*Mrs. E. S., Wisconsin.*

● To be sure a letter containing loose change reaches its destination in good condition, I fold the money in cellophane paper and stitch around each coin with the sewing machine.—*Mrs. J. B., Indiana.*

● **I keep shining, spotless mirrors in our house with the aid of a crumpled newspaper. There's no bother with drying rags, no trace of lint when I've finished. I simply wash the mirror off quickly with clear water—no soap—and rub a crushed sheet of newspaper over the surface to dry it.—*Mrs. J. K., Iowa.***

● When cleaning shelves or cabinets, I move a bridge table nearby to hold their contents. This convenient stacking surface saves many steps as well as extra time and work. A worktable on wheels would do the same efficient job.—*Mrs. F. C., Missouri.*

● **A small spray gun filled with furniture polish is a handy way to treat dustcloths and dust mops. Spray on a light mist for effective polishing.—*Mrs. I. V., Iowa.***

● An old hot-water bottle makes a dandy kneeling pad when cleaning time comes around. Simply fill it with feathers—not too full—and it will be soft, easy to move, and a handy, comfortable knee-saver.—*Mrs. G. B., Illinois.*

● **When painting flowerpots, just turn them upside down over a tin can. The can acts as a stand and may be turned as the**

pot is painted, protecting both your hands and the pot. Leave the pots on the cans until dry.—*Mrs. J. H., Minnesota.*

● When there is a sick member in your family, make an easy, comfortable back rest by slipping his pillow through a wire hanger and hanging it on the head of the bed behind him. It comes in handy, too, for your own reading in bed at night.—*Mrs. M. F., Kansas.*

● **For homemade game boards requiring numbers, cut the numerals from a large calendar. Paste these to the board, and coat the entire surface with clear shellac. —*Mrs. L. H., New York.***

● The carpet beneath the baby's high chair is easily protected with a large square of linoleum. I keep this rolled around an old broom handle between meals. It's easy to slip from the closet and unrolls in a second. Now, if our small one spills something, a damp cloth removes the evidence with no damage to the rug. To make the linoleum inconspicuous, I bought it in the same green as our own carpeting.—*Mrs. C. B., Iowa.*

Successful Farming will pay $5 for each helpful suggestion published. We cannot return unused suggestions.—Editors

Free Offer!*

...to bring new glowing Beauty to your Hair!

New Jergens Liquid Cream Shampoo

SOAPLESS...no dulling film! All beauty benefits of cream and liquid shampoos. Contains Lanolin and other hair conditioners.

LEAVES HAIR SPARKLING CLEAN, soft, easy to manage. Bursts into rich, creamy lather even in hardest water. Rinses out quickly, completely. 8 treatments in 49¢ "gift" bottle.

free* with $1.00 size Jergens Lotion

$1.49 value—*both for*

89¢

plus tax

Offer good for limited time only—look for it at your cosmetic counter today.

Buy a regular dollar bottle of Jergens Lotion—world's favorite hand care for soft, smooth, romantic hands—and you get 49¢ Jergens Liquid Cream Shampoo FREE!* —both for 89¢!

***YOUR MONEY BACK!** Buy this offer. Use the Jergens Lotion for 2 weeks. If not delighted, mail back to The Andrew Jergens Company, Cincinnati 14, Ohio. They'll return your money. Keep the Jergens Liquid Cream Shampoo as your free gift.

Stuck with a mess of crusty pans?

BRILLO

gives TWICE the SHINE in HALF the TIME!

New "Scorchy Pan" Tests *prove* Brillo outshines all other types of cleansers tested! Shine-meters show Brillo gives aluminums *twice the shine in half the time.*

A square, metal-fiber Brillo *pad-with-soap* just whisks off scorch! And the *jeweler's polish* in Brillo soap gives the speediest shine yet! No scraping! No scrubbing! Brillo *guarantees* results. If Brillo fails to clean a utensil, you get a new one—*free!*

★ GREEN box — pads and cake soap
★ RED box — soap-filled pads

There's jeweler's polish in BRILLO

Flying news for farmers

Wherein the Wayne Robinsons prove that the farm is the place to fly; and we philosophize on safety

By Les Richardson

The Wayne Robinson farm near Marshalltown, Iowa, is one of the many air-equipped and air-minded farms in these United States. As handy as the car in the garage is the airplane in the hangar. Convenience is the key word on this most modern farm, and Wayne Robinson and family represent what the modern farmer does about the transportation problem today.

Wayne insists that their airplane is for pleasure only, but even as he says it his eyes twinkle and make it plain that the use of the ship helps a little. When Wayne first acquired the airplane, it was used to check fields of seed grain. From this vantage point he and his son-in-law could quickly find weed areas and the location of other crop dangers. Flying has also shown him the wet and dry spots on his farm, season in and season out. And this ability to "farm from the air" is an advantage of every open-country flyer.

The Robinson family is a very interesting group—as a group or individually. Being the father of two very lovely girls netted Wayne two fine sons-in-law. Mr. and Mrs. Bob Ottilie maintain residence on the home farm, while Mr. and Mrs. Richard Gallantine live only six short miles away. Bob is the chief pilot of the family. Having served his country as a Navy flyer during the past war, his training was already well under way for the commercial pilot's license he now holds. Currently, Bob is studying for his instructor's rating. And he hopes to teach several of his friends the art of sustained flight.

Not to be outdone, Mrs. Ottilie is also an adept pilot in the beginner's class. She is working hard for her private license at the present time. When those flight breakfasts, which she likes so well, are planned, she is always ready. Having a young son doesn't hinder her too much because Mrs. Robinson jumps at the chance to do a little grandchild-watching any and every day.

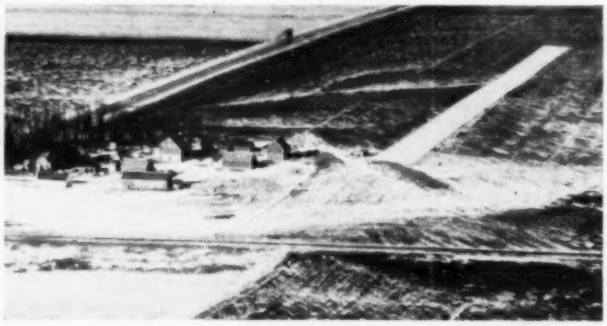
Mrs. Richard Gallantine, who was Wayne's "boy" for so long, has some 30 hours in the air to her credit. Along with Jean, she is on her way to a private license. She also enjoys the feeling of freedom of the air.

When leaving on one of their flights, the Robinsons have only a few steps to take beyond the garage to get to the plane hangar. This hangar is built on the concrete floor of a barn that burned. The slab also serves as a ramp in front of the hangar. When Wayne and Bob decided to build the hangar on the farm, they wanted convenience and got it. The landing field is a one-way strip running north and south. This strip is 70 feet wide and 1,800 feet long, with no obstructions

[*Turn to page 168*

Left: Wayne Robinson and Bob Ottilie roll their ship out of the hangar they designed themselves. Note the hinged drop door in the wall to clear wingspread (white panel, at left)

Below: And here's what you see when you approach the Wayne Robinson seed farm from the air—a sod strip (gray diagonal right of buildings) and handy Highway No. 14



Energy Breakfasts *with the greatest of ease!*

Breakfast-quickie! Top Kellogg's Corn Flakes with canned fruit cup. Drain it, of course, and add the syrup to the morning fruit juice. This colorful medley of fruits teams up deliciously with crisp, fresh Kellogg's Corn Flakes.

Food for thought: Kellogg's Corn Flakes is a good winter breakfast food. Puts "warming" fuel into your system!

"Five children, the oldest is almost eight—could make breakfast a chore!" contributes Mrs. Arthur J. Dwyer of Seattle, Wash. "My quick standby is Kellogg's Corn Flakes. We love that satisfying flavor. Thanks, Kellogg's, for making what's nutritious taste delicious!"

Like personal service? (Who doesn't!) Then you'll like the new Handi-Pak... 8 single serving packages of Kellogg's Corn Flakes in one cellophane wrap.

Teen-age tip from Betty Betz, columnist for young Americans. "Don't be a no-show at the breakfast table. Doesn't take a minute to build a delicious main dish of your Kellogg favorite with fruit and milk. You don't *store up* that breakfast—you *go* on it!"

That pre-noon sag was tested by a distinguished state university. When women changed from "just coffee" to a light breakfast, their pre-noon output and alertness were stepped up!

"Even a small family can have a change of cereals every morning—with Kellogg's VARIETY!" discovers Mrs. Philip Mitchell of Smithtown Branch, New York. "VARIETY lets us choose what we want. It's *real* variety at its best!"

Writes same day. "Just received my Kellogg Signature Silverware teaspoons. How nice they are!" From Mrs. Walter Pridemore, Newport, Mich. Yes, receive 4 handsome silverware teaspoons—each with your initial—for only 75¢ when you send the white star end of Kellogg's VARIETY PACKAGE. Package gives details.

Your ideas invited on Kellogg cereals. Just drop a note to Barbara B. Brooks, care of Kellogg's, Box 303, Battle Creek, Mich.

WHO'S AFRAID OF THE BIG BAD WEATHER...with this nourishing breakfast main dish tucked inside!

Mighty quick
Breakfast trick—
Choice of favorites
Sure to click!

10-box choice, 7 cereal favorites

Kellogg's
Mother Knows Best!

A view on one of Ariel F. Cooley's four Arizona alfalfa farms.

A fine American farm and a fine American car

ARIEL F. COOLEY FARMS NEAR MESA, ARIZONA. He raises a main crop of alfalfa—with some barley and flax—on four places totaling 650 acres. "I'm driving my second Studebaker Land Cruiser car and also keep a 2-ton and a ½-ton Studebaker truck busy every day," Mr. Cooley tells us proudly.

"Studebaker's my favorite automobile"

says this successful Arizona alfalfa grower

THE low, long, alluring 1950 Studebaker is more than the "next look" in cars. It's the "next ride" in cars.

It's the most progressive step yet in refashioning automobiles for smarter appearance—and for safer, simpler, more relaxed driving.

From its gleaming aerodynamic front end to its gracefully flight-streamed rear fenders, this trim, sleek, smooth-performing 1950 Studebaker has the right build for thrift—the right design for riding comfort.

It's a car free from bulging excess bulk that might squander your gasoline—a car solid and sound with the durability of fine Studebaker materials and wear-resisting Studebaker craftsmanship.

Stop in at the nearest Studebaker showroom first chance you have. Arrange to go out for a convincing drive.

Treat yourself to the unforgettable pleasure of a half hour behind the wheel of a low-price Champion or value-packed Commander sedan, coupe, convertible—or the special Studebaker Land Cruiser.

And don't forget to check up on a handsome, husky, powerful new Studebaker truck, too. Studebaker trucks are noted for low cost operation.

NEW 1950 STUDEBAKER

The "next look" in cars!

Farmers will feel the blow when we stop helping Europe

Billions in gifts and loans to foreign countries have bolstered your farm markets. Adjustments must be planned now because European Recovery Program ends in 1952

It's high time we gave some serious thought to the important problem of foreign trade. What are farmers, labor, and industry in this country going to do when the European Recovery Program—with all its billions of dollars in gifts and loans—comes to an end in 1952? When this happens, farmers likely will get a severe jolt. Here's what is happening:

For a number of years, the United States has been selling to other countries far more goods than it has been buying from them. This has been made possible largely by the many billions of dollars we have pumped into foreign aid programs of one kind or another. For example, in 1948 this country exported close to $12.5 billion worth of goods. We imported around $7 billion worth. In 1949, our exports amounted to $11.7 billion and our imports of goods totaled about $6.6 billion.

This left a difference between what we exported and imported of about $5 billion each year. Of course, countries which bought our exports paid the difference. But they did it mainly with the gifts and loans they got from the United States. Worst of all, there are no real signs of improvement in the situation. Right now, we should figure out how much foreign trade we want over the next 5, 10, or more years and what we must do to make that trade possible.

Even with the help we have given (the European Recovery Program alone approaches 4 billion dollars this year), our sales abroad are dropping off from the peak reached in 1947. The plain fact is that, while the countries we are aiding have made progress toward economic recovery, their production is still low. They are far from able to earn, through their exports and by other means, the dollars that would enable them to pay their own way.

As a result, their buying from us is being cut down in favor of nondollar areas which are willing to supply needed goods either through barter (trading) or through "soft" (nondollar) currencies. Also, there is the present drive among dollar-short countries to become more self-sufficient. These countries are trying to cut down on buying, even though this means increased costs and further belt-tightening for their own people.

Because farm commodities are piling up under high-level production and government price-support programs, our farmers have a tremendous stake in what happens to foreign trade. Farmers will be pinched more than any other group, *unless* steps are taken to provide for necessary adjustments, both in our production and in the pattern of our foreign trade.

For nearly a decade now, American agriculture has been influenced by war. Over-all production was boosted by more than a third. War needs were met by our farmers' producing all kinds of food, especially livestock and poultry products, fats and oil, fruits and vegetables, and grain. Since the end of the war, the big need has been for heavy shipments of grain to hungry people overseas. In fact, about half the total value of farm produce we have been exporting recently has been grain, and mostly wheat at that. Everywhere, our farm production has jumped. [*Turn to page 88*

By Nathan Koenig
Executive Assistant to the Secretary of Agriculture, U.S.D.A.

BROADVIEW FARMS
MILKING SHORTHORNS

COVER STORY

Howard and his dad have

. . . to the day's big question of two farmers and only one farm. The ladies in the case have a good answer, also

Twenty-four-year-old Howard Barnes and his dad, Andrew H., are realists. That, in everyday language, means a couple of guys who believe in the nobility of farming as a profession and in the furtherance of the community—but who have learned through hard experience that the bank balance has to be consulted, too.

Before we get into a discussion of their farming and living methods, let me illustrate what I mean: Andrew H. himself has always been interested in the 4-H Clubs in and around Oskaloosa, Iowa. His wife is a Club leader now and has been either a leader, co-leader, or member of the county committee for 20 years.

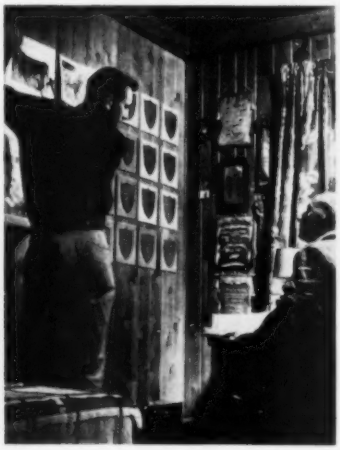
Howard, a Club winner from way back and past Mahaska County 4-H president, married Jean Houghtaling six months ago, and they're living with the elder Barneses while they build a home of their own. Jean was a Mahaska County Club president, a delegate to the National Congress in Chicago. Rosemary, Howard's [*Turn to page 84*

By Hugh Curtis

Andy knows cattle and how to show them, as this Waterloo Dairy Cattle Congress snapshot proves. Says he, "What we want are good heads, straight toplines, medium size"

U-Need-Us Club members (Mrs. Andrew Barnes, co-leader) gather at Broadview's council circle. Top, left to right: the Misses De Jong, Butler, Petersen, Valster, Barnes, and Rempe. Bottom row: Grandia, Van Maanen, Van Zomeren, Van Zomeren, Denburger

Howard gets last-minute grocery-list additions from Mom. The Howard, Andrew Barneses live together



Another blue ribbon goes up on the pine-paneled office walls while Andy watches. The Broadview bloodlines are Clay-Bates-Barnes

one answer...

After Broadview pigs (this year from purebred Durocs on Hamp sows) weigh 125, they get corn self-fed with equal parts meat scraps, ground alfalfa, soy meal, and free access to minerals

Left to right: Mrs. Andy; son Howard; his wife, Jean; Rosemary; and Andy Barnes love good music, sing and play it, listen to it on the radio-record player as one of their many, all-family hobbies. And they work along together the same way!

Jean stakes down the measuring cord as Howard unrolls it to mark foundation lines of the new home they're building

HOW TO BUY

living-room furniture

Good living-room furniture should be like an old friend—good company after a long, hard day's work. It should agree with you in comfort and styling. It should reflect your taste and personality. It should weather years of use with grace and dignity.

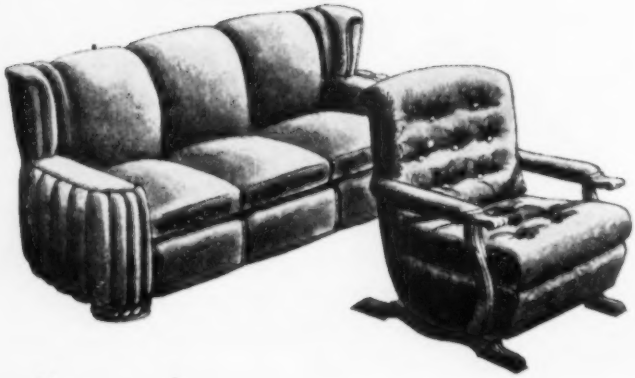
What makes a piece of furniture good? Why should one sofa look comfortable and inviting for years, while another, of the same size and cost, looks outdated and clumsy after a few months?

The answers are found in the illustrations here. They are basic guides for selecting the right things. When you shop for living-room furniture, be guided by the points below and don't be swayed by glib salesmen or flashy settings.

Avoid the ornate carving, the fancy rosettes, the massive bulk of overdone, "plushy," upholstered furniture. The satisfaction in comfort and looks from such items is short-lived. Gaudy detailing often hides shoddy construction, cheap materials.

Look for the fine, graceful line. Choose simple, clean-cut designs, for they are the essence of timeless styling. Examine every piece for a handsome finish and good construction details. Try each piece for comfort and versatility, just as you would try on a suit of clothes before buying it.

By Virginia Blodgett



WHY BUY THESE?

- Massive arms and backs are so out of proportion that they look bulky, unattractive even in a large room.
- Construction costs have gone into excess trim instead of more vital, inner construction.
- Too-deep seats and carved trim actually make the furniture uncomfortable for sitting.
- The upholstery is so bulky and the curves so deep, cleaning is difficult.
- It is almost impossible to slipcover over such ornate trim.
- The ornate carving is dust-catching and will chip and scar easily.
- The pieces are too elaborate and gaudy to be in good taste.

•They are too ornate and elaborate to be in good taste.
•Ornate carvings scratch, scar easily. Inlaid veneers will chip and warp.
•Elaborate curving of and carving in legs actually weaken the construction and durability.
•Numerous crooks and crannies make cleaning difficult.
•Ornate trim makes flat surfaces smaller, thus cutting down on utility.

WHY BUY THESE?

SAME DOLLARS BUY THESE

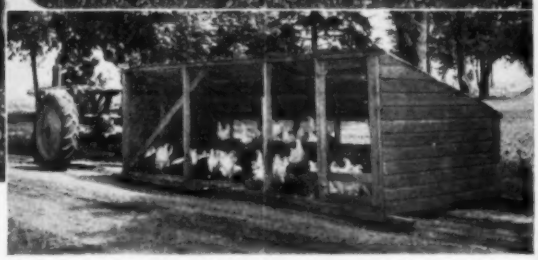
•The pieces in their entirety are well proportioned and will look well in any size room.
•There is no protruding trim to scar and scratch.
•The straight or simply tapered legs are handsome, sturdy, and easy to clean.
•The flat surfaces are wide, generous, and smooth, permitting easy cleaning and upkeep.
•Extensions and spacious flat surfaces make these more usable and convenient than tables above.
•Simple, straight lines and good design make these tables in good taste always.

SAME DOLLARS BUY THESE

•Simple lines, good proportions, and good styling make these handsome pieces suitable for any type or size room.
•Construction costs have gone into essentials, rather than into excess trim.
•Clean-cut designs, without bulk, result in proportions that give real sitting comfort.
•Straight lines and simple curves make cleaning easy.
•Simple lines make slipcovering an easy matter.
•Good, basic styling eliminates the danger of this furniture's becoming outdated. END

The Kuhrs find ways to

more poultry profits



Haul pullets to range at 8 weeks. The cockerels remain in barn loft until 12 weeks old, then they are killed, dressed, and sold

Wash waterers each time filled, then return to position. Hose carries water to barn loft (see large picture), remodeled to hold 1,200 baby chicks

Three sizes of chick feeders shown by Marshall Kuhr. They meet space needs of chicks at various stages of growth. Chicks are better fed and they grow faster, too

Pullet range consists of one-half acre of wheat located 100 yards from dwelling. Range is close enough to avoid raids by most predatory animals. Shelters and portable feed house in background. Pullets go to adjoining cornfield after wheat is eaten

Cutting costs and turning out a product that brings the high dollar is a combination that's hard to beat. It's extra good in times like these

By C. E. Hughes

Hog raising used to be important business for the J. Merton Kuhrs, but no more. Chickens have run hogs off the place.

A set of farm accounts, kept in cooperation with the state agricultural college, showed the Kuhrs that poultry was a better-paying proposition than hogs on this farm in Washington County, Nebraska. That's why they have moved up by degrees from a lowly 400 chicks three years ago to a contemplated 1,200 this spring.

Business analysts have predicted that there'll be slimmer pickings this year for the poultry raiser. The Kuhrs are geared for almost any reasonable dip in egg and poultry prices, for they've been concentrating on cost cutting at one end and producing the best product for the highest price at the other. You can't go too far wrong on that sort of a plan.

One cost-cutting principle that the Kuhrs have worked to a fare-you-well is that of making the best use of what they have available. Here's one instance: In the summer of 1948 the stringers in their dairy barn let go, and the whole floor plus the hay came crashing down. At the time, this seemed tragic, but it all turned out for the best.

The 14 cows were moved into a loafing shed improvised from an old hay barn, and the dairy barn was turned into a chicken house. Mr. Kuhr raised the mow floor into position and converted the upstairs into one big brooding room, 30'x40' in size, with a total capacity of 1,500 chicks up to eight weeks of age (see large picture at left). The lower part of the barn was made over into a laying house. (See lower picture, page 109.)

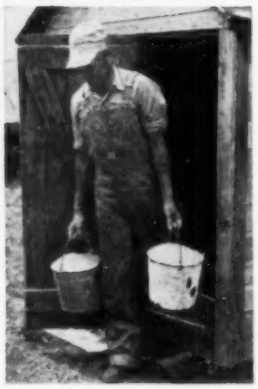
Even though the Kuhrs have to climb the barn stairway twice a day to look after the chicks, they find that keeping all of them in the same room represents a saving in labor over going to and from three brooder houses, as they had done in the past.

The built-up litter system is another example of making the best use of what you have. Until recently, the Kuhrs had been using only peatmoss litter for their baby chicks. But they had plenty of corncobs and a burr mill.

Today, they still use peatmoss for the starting layer, but crushed corncobs are used exclusively in the building-up process. They are added whenever needed.

This combination is less dusty than straight peatmoss and has cut the [*Turn to page 109*

Range waterers cleaned every day. These waterers are connected to automatic pressure system water line



Feed house on range holds oats, growing mash for pullets. Mounted on skids, it can go where needed. Holds feed for layers part of year

All made with cereals

Cereals aren't just for breakfast or that before-bed snack. We found them versatile and delicious in everything from main dishes to desserts. We're featuring cereal desserts here—as yummy as any you'll ever eat!

The Frosted Berry Pie has a delicious, candied corn-flake crust that men close their eyes and "yum" about. The Strawberry Velvet is special in its carameled wheat-flake basket. The Date and Nut Dessert gets its unusual rich goodness from Grape-Nuts—the Duchess Cake likewise. The Candied Pears are butter-coated and rolled in corn flakes—tasty for salad or dessert.

By The Tasting-Test Kitchen Staff

Strawberry Velvet

Serves 6

Soften . . . . **2 tablespoons plain gelatine in ½ cup cold water**
Dissolve gelatine over boiling water.
Add . . . . . **2 teaspoons lemon juice**
¼ teaspoon salt
Combine **½ cup sugar**
1½ cups crushed strawberries (measure berries, fresh or frozen, after crushing and draining thoroughly)
Stir berries into gelatine mixture.
Chill until slightly thickened.
Fold in . . **2 egg whites,** beaten stiff
½ cup cream, whipped
Pour into **Caramel Baskets**
Chill until firm.
Garnish with **strawberry slices.**

Caramel Baskets

Combine **1½ cups brown sugar**
2 tablespoons corn syrup
½ cup milk
6 tablespoons butter
Cook to thread stage or until candy thermometer reaches 232°.
Pour over **2 cups crushed wheat flakes**
Mix well.
Line well-buttered muffin tins or individual pie tins with mixture to form cups.
Cool, unmold, fill with **Strawberry Velvet.**

Date and Nut Dessert

Serves 6

Combine **½ cup Grape-Nuts**
½ cup finely cut dates
½ cup broken nuts
4 tablespoons brown sugar
¼ teaspoon salt
Fold in . . . **1½ cups heavy cream,** whipped until stiff
Pile into sherbet glasses.
Chill 1 hour before serving.
Top with **Grape-Nuts, nuts, dates.**

Duchess Cake

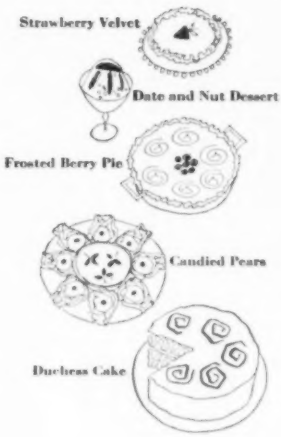
Serves 10

Cream together:
½ cup fat
1 cup sugar
Add . . . . . **2 slightly beaten eggs**
Beat until light and fluffy.
Combine **¾ cup milk**
3 tablespoons orange juice
1½ teaspoons grated orange rind
Sift together:
2¼ cups sifted cake flour
3 teaspoons baking powder
½ teaspoon salt
⅜ teaspoon cinnamon
¼ teaspoon ginger
Add . . . . . **¾ cup Grape-Nuts**
Add dry and liquid mixtures alternately to creamed mixture, blending well.
Pour into 2 round 8-inch layer pans (grease pan, put waxed paper on the bottom).
Bake at 350° for 30 to 35 minutes.
Cool.
Frost with **Seven-Minute Icing.**

Seven-Minute Icing

Combine in top of double boiler:
2 unbeaten egg whites
1½ cups sugar
1½ teaspoons light corn syrup
⅓ cup cold water
⅛ teaspoon salt
Cook over boiling water, beating constantly until mixture forms soft peaks, about 7 minutes.
Remove from heat.
Add . . . . . **few drops green food coloring**
⅛ teaspoon peppermint extract
Beat to spreading consistency.
Spread on cake.
Decorate with **2 ounces melted chocolate, cooled slightly.**

[*Turn to page 58*



Look what SWEET

This is what sweet clover did

This is what happened without it

We didn't skip the nubbins—there just weren't any there on the sweet clover side. This corn came from 100 feet of row. It figured out to a yield of 119 bushels!

Without sweet clover, there was also practically no corn. In the same field, only 27 rows away, 100 feet of row gave this small pile of twisted ears, for a yield of but 32 bushels to the acre

CLOVER will do

If you want more corn from each of your allotted acres, try plowing down sweet clover. It took only one sweet clover crop to make the difference shown at the left

By C. J. Willard
Ohio State University

Take a look at the two top photographs at the left. They were taken within half an hour of one another last July, only 27 rows apart in the same northern Ohio field. The whole field has been farmed as one unit practically every year for the last 25 years.

Here's what made the difference: a few years ago, the field was split for a year, with half in wheat, half in corn. As soon as the wheat was off, that half was limed. The other side never was covered. The field went back together, and the whole thing was put in wheat, with a sweet clover seeding. The clover caught on the limed side, didn't on the other. Last spring, a year after it was seeded, the sweet clover was plowed down ahead of the corn crop.

And that one crop of plowed-down sweet clover made all the difference. Fertilizer, planting, everything else was the same! In October, a measured 100 feet of row in the sweet clover side gave the pile of corn at left in the lower picture. One hundred feet in the other side gave the corn at the right. We didn't just ignore nubbins on the sweet clover side—the three or four in the picture are all there were. We picked everything. Those piles figured out to a yield of 119.2 bushels to the acre where the sweet clover had been plowed under. On the other side, the sandy, corned-to-death soil gave only 32 bushels!

That's a tremendous difference, and you couldn't duplicate it every time. But still, sweet clover is the best legume catch crop that can be grown in the Cornbelt for soil improvement. Its greatest advantage is in a two-year grain-farming rotation of corn and small grain, with sweet clover sown in the small grain one year and plowed under a year later for corn. The pictures at the left testify to that!

This rotation is a wonderfully sucessful one clear across the Cornbelt. On soil types in all parts of Ohio, sweet clover between oats and corn has added 15 to 25 bushels per acre to the corn crop. Corn receiving 500 pounds per acre of sulfate of ammonia, without sweet clover, produced no more corn than plots with good sweet clover plowed under. In Iowa, Illinois, Indiana, and other Cornbelt states, sweet clover in this grain-farming rotation is fully equal to a liberal application of farm manure, in maintaining soil productivity.

Pasture is next in importance to soil improvement as a good use for sweet clover. Sweet clover has an enormous carrying capacity in May and June of the second year. But it dies by August 1, usually, and at least by September 1, so it provides comparatively little pasture during the short pasture period.

To get the most out of sweet clover pasture, it should be stocked heavily, early, so it does not grow more than about knee-high. Sweet clover is not as palatable as many other forages, and stock will usually eat everything else in the pasture first. This results in less bloat hazard from sweet clover than from alfalfa or Ladino. But the hazard is there, and you should take precautions. Turn animals in full, not hungry, then keep them on the pasture, and have some coarse, dry hay or straw in the pasture.

Sweet clover makes good hay late in the year it is sown, if you can afford the reduction in soil improvement caused by taking it off. First-year sweet clover is fine-stemmed and cures easily to a leafy, high-quality hay.

Second-year sweet clover should be used for hay only in emergencies. It is almost never [*Turn to page 120*

DO

Use sweet clover as a catch crop after small grain, before corn.

Lime soils *at least* to pH 6.5.

Apply phosphate and potash liberally, as needed.

Sow sweet clover in small grain in the spring.

Watch, and treat, for the sweet clover weevil and grasshoppers.

DON'T

Use for hay the year after seeding.

Clip the stubble of grain in which sweet clover was sown, or cut the grain for hay.

Cut at all after harvesting small grain, unless hay in September is more important than soil improvement.

Use white sweet clover for any summer seeding. Yellow is better.

Pasture first-year sweet clover before October 1.

Fruit salads

with new flavor and color combinations—and almost quick-as-a-wink to make

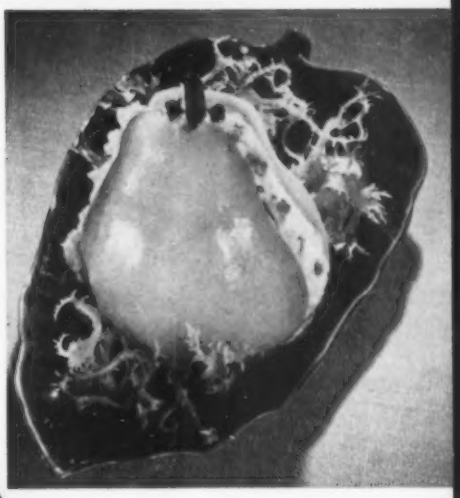
By Tasting-Test Kitchen Staff

Cinnamon Apple Star with a new stuffing. Cut ➔ apple in sixths to within ½ inch of bottom. Stuff with mixture of cream cheese, nuts, celery, mayonnaise. Sprinkle with chopped nuts

⬆ Blue Ribbon Special is canned, whole, peeled apricots filled with crumbled Blue cheese mixed with mayonnaise. Drain apricots and fill. Chill the salad before serving

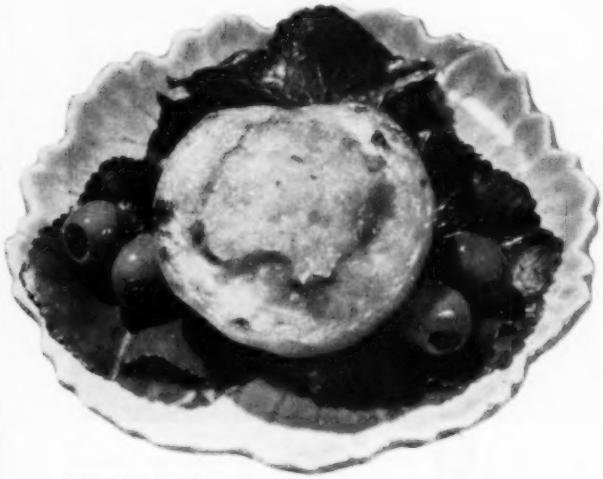
Pineapple Favorite is easy to make. ➔ Simply place a pineapple slice on a crisp lettuce leaf; top with three strips of avocado in fan-shaped arrangement. Garnish with cherries. Serve with tart French dressing

Cheese-filled Pear is chilled pear halves put together with mixture ➡ of 2 tablespoons chopped, crystallized ginger, 3-oz. package cream cheese (package fills three pears). Stem is stick cinnamon, cloves



Orange-Pineapple Salad—arrange pineapple half-slices and orange sections on plate as shown. Outline orange sections with pimiento strips; garnish with endive, olives. Pass Fruit-Salad Mayonnaise ⬇

Fruit Ginger-Ale Ring is made with canned fruit ➡ cocktail, gelatine, and ginger ale (substituted for some of liquid in gelatine). Center is filled with Fruit-Salad Mayonnaise, topped with a sprig of water cress

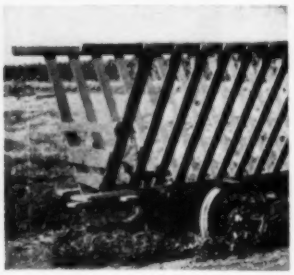


⬅ Hot Number is a hot garnish salad. Serve it on a salad plate or meat platter. Fill each peach half with crushed pineapple, spoon French dressing over top, and broil for about 10 minutes. Serve the salad at once on greens; garnish with olives

Recipes on page 59

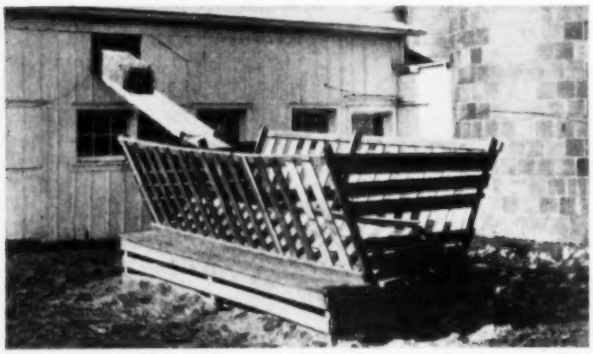
Ten

1 This all-steel feed bunk is used for both hay and grain. One-half inch rods form sides.

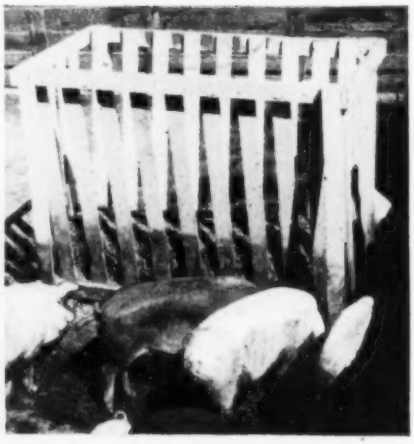


4 Hay bunk on wheels is handy when hay can't be stored near the feedlot. Bunk can be

3 Ordinary feed bunk is placed with one end next to the hay-storage shed. Loose or baled hay is thrown down from above. This arrangement is handy for feeding outside during good weather. At this particular farm, bunks inside hay-storage building are also used and are filled from above



7 Here's an easy way to get baled hay from the barn to the bunk. A chute leading from the haymow to the bunk takes the backache out of handling bales. For long hay, a wider chute is needed. An inverted V in the center of the feed bunk helps to keep the hay within reach of the cattle



8 Working much like a self-feeder, this small hay bunk is ideal for pigs. Chopped hay feeds down into the trough at the bottom of the bunk. Small openings keep pigs from wasting the hay

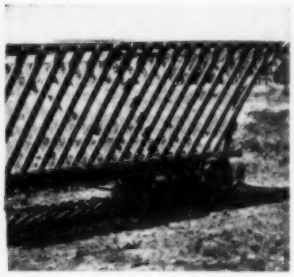
easy ways to feed hay

By Dick Hanson

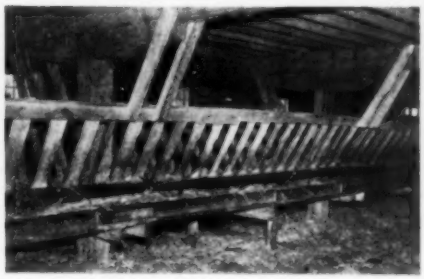
These hay-feeding ideas were borrowed from farmers who might be your neighbors. Their ideas can work for you

Old hot water tanks were cut lengthwise down the middle to serve as grain troughs. Steel bunk is strong and easy to move

2 Hay bunk built next to the inside wall of a hay-storage building saves pitching. Hay is pushed down from above. A section of the wall was cut out and hinged. Hay is protected from the weather

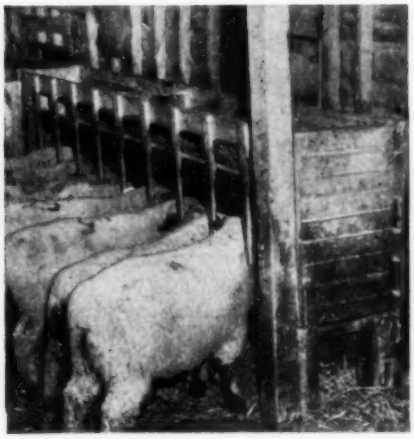


filled, then pulled to lot. Running gear can be made to fit any bunk by shortening or adding to the length of the reach

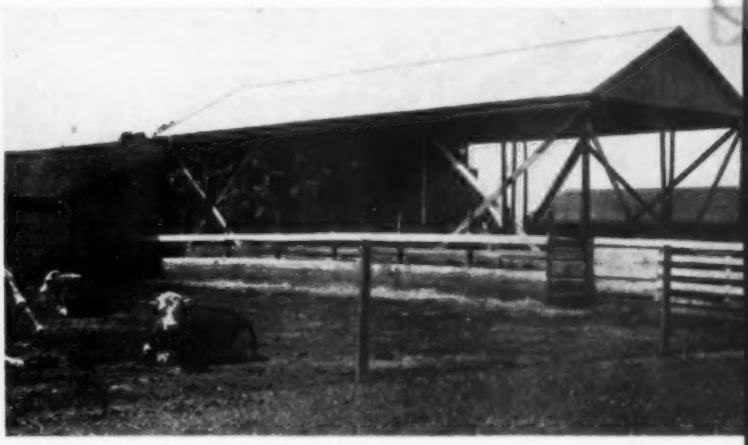


5 This bunk was designed for use in a barn where it was impossible to feed the hay from overhead. Hay is hauled into the barn and then is pitched into the bunk. Grain can also be fed in this bunk

6 This is a better arrangement than No. 5. Hay is stored above the feeding area. The floor-to-ceiling bunk along the wall is filled from above



9 Especially designed for sheep, this hay bunk helps to keep the neck wool free from chaff. The slanting board prevents the sheep from burrowing into the hay



10 Hay shelter built next to the feeding lot saves both time and labor. The hay shelter is 22'x56' and will hold about 2,800 bales. The bales are fed in the hay bunk which separates the hay shelter from the feeding area. This shelter provides cheap protection for the hay, is easy to build. END

Making beds. Stand at the center of the bed with feet slightly apart and legs straight. Swing body from waistline and bend from your hips as you whip back the bedclothes, smooth the sheets and blankets, and tuck the edges under

For hips and tummy

Drop something? Pick it up the slimming way. Stand with feet slightly apart, legs straight. Bend toward floor from hips, keeping back unarched, head high. Fine for trimming thighs. Try deep knee bends, back erect, for same results

Climbing stairs. Be posture-perfect with head up, ribs high, rear and tummy in. Put one foot on the step, straighten your knee, and lift. Now, on to the next step with your other foot. You can take hope in the tightening pull you will feel as you ascend

For large legs

While dressing. Walk the length of your bedroom and back on your heels, in stocking feet or barefoot. Hold knees stiff and back straight as you move. "Duck-walking," ungraceful as it feels, is beneficial to the thighs and back as well as to too-hefty ankles

For heavy ankles

Preparing vegetables. Sit at kitchen table with knees crossed. Rotate your top foot at ankle, making little circles, first to right, then left—10 times each way. Now change leg position and give other foot a chance. Done daily, it slims, strengthens ankles

YOU *on the lighter side*

By Nancy Carpenter

These 10 easy exercises are all in a day's work. Yet, faithfully followed, they will help banish unflattering bulges and streamline your shape.

Look pounds lighter with good posture. Take a flying start on your streamlining program by checking your posture first. It's the key to a good figure. Besides, it's good exercise that flattens the tummy. Stand with your back against the wall, feet about 4 inches apart. Bend knees and slide to near-sitting position. Tuck your tailbone under and push waist to the wall. Stay like this as you slowly straighten your knees and slide back up along the wall. Walk away holding this pose and head for the nearest mirror. See the difference!

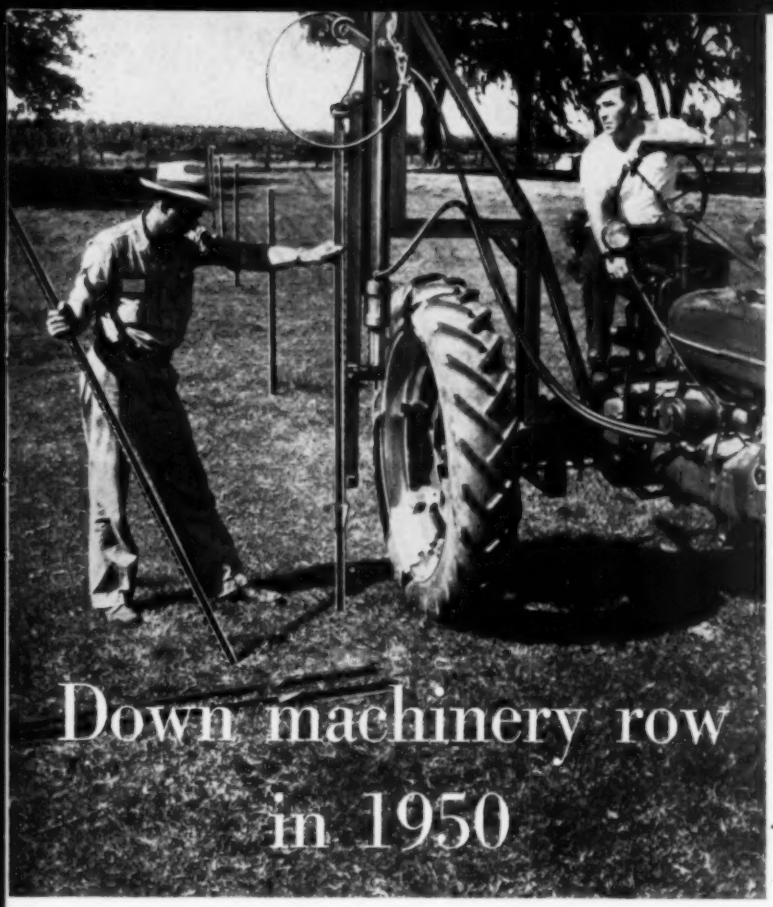
Take a breather. As you whisk about the house, breathe your way to a trim tummy line. Take a deep breath and think, "in 2-3-4," as you take four steps; "out 2-3-4," as you take four more. Hold rib cage up at all times.

At the table. Sitting right is trimming. Push your hips against back of the chair, draw your abdomen in firmly toward your backbone. You'll feel a double play of muscles—an up-pull and in-pull—both hard at work for your slimmer, firmer figure

For wayward waistlines

At your ironer. Sit tall and place the palms of your hands on back of the seat cushion. With your weight on them, move your rib cage to right as you count "1-2," then to left for 2 counts. Keep shoulders level and your hips unmoved

Turn to page 76



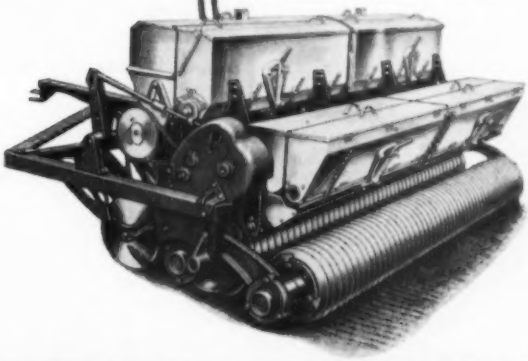
Down machinery row in 1950

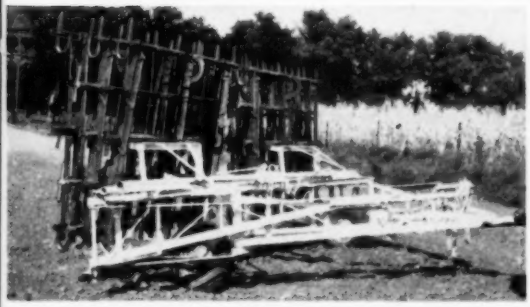
For steel posts, this device serves as a driver or puller. Built by Sterling Foundry, Sterling, Illinois, it mounts on tractors, trucks, uses hydraulic power

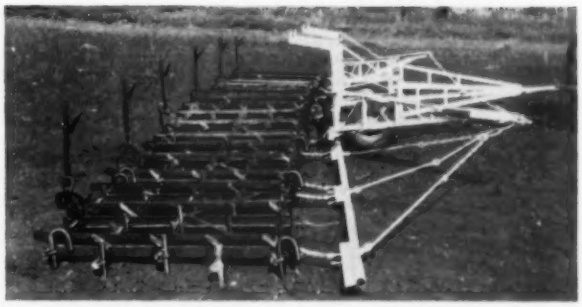
Motor-driven gasoline pump, built by Ossian Engineering Co., Ossian, Indiana. Motor starts as hose is taken from boot, stops when it is replaced

Better legume stands are promised by this combination machine, offered by Brillion Iron Works, Brillion, Wisconsin. Seeds fertilizers and grains, too

As farm prices go down, our efficiency must go up—or else. One answer is to do each job faster, and cheaper. Machines can often help do that. Many of those shown here are designed to do several jobs at once, or to do one job on a larger scale, with fewer man-hours. Some of them may just fit on your farm







Harrow evener handles up to eight sections at a time, yet it can be taken through standard gates without folding. For this, harrows fall back into tandem position. For carrying on the road, the harrow sections can be loaded on and hauled. Schenkelberg Mfg. Co., Carroll, Iowa

More on page 96

Plan your room from the

Your carpet will determine your decorating for years to come; choose it as carefully as you would any long-range investment

By Kay Jones

This carpet pattern is made up of several shades of one color. It permits a wide variety of color schemes. With it, use only one large, distinct pattern for walls or draperies. Keep the rest of the room in solid colors

Where wide bands of solid color separate the floral design, as in this carpet, you may use another pattern on walls with a simple check in the draperies. Keep other furnishings in solid colors found in carpet

Carpeting is much too permanent an investment to be chosen carelessly. It's of prime importance decorating-wise, for it occupies more space in a room than anything else except the walls.

Carpeting cannot be replaced often because of its cost, and it need not be because of its construction. Slipcovers, draperies, and wall colors, however, are not as costly to change and usually need to be replaced more frequently. For this reason, your choice of carpet should permit a variety of color schemes.

Plain carpeting is the solid one-color variety. It makes a room look larger and less "busy." If you select it in a pleasing color, you will not tire of it easily. A plain carpet also gives you an opportunity to use a bold pattern in your room, such as a colorful floral or geometric design for draperies or wallpaper. But guard against using too much pattern, even with a plain carpet; if you do not take this precaution, your room is likely to become spotty and cluttered in appearance. A good basic rule is: Use in each room only one large pattern, one very small pattern or stripe, and solid colors in the rest of the room. Black and white and color photographs on this and the facing page illustrate this good rule.

Two-tone carpeting, or tone-on-tone carpeting, has an allover pattern made up of two or more shades of one color. It, too, permits considerable freedom in decorating. With it, as with plain carpeting, color schemes are practically unlimited. The basic rule given previously applies here. Be sure pattern for draperies or walls is clean-cut in design and not in conflict with the carpet pattern.

Figured carpeting usually is made up of many colors which form an allover design. When you use figured carpeting, the rest of the room *must* be decorated in solid colors. If other patterns are used in wallpaper, draperies, or slipcovers, the room will become cluttered and restless.

To plan a color scheme around figured carpeting, select the easiest-to-live-with color in the carpet for the walls and for the largest piece of furniture. Then use one or two of the bright colors in the carpet for draperies, for one or two chairs, and for accent colors on lamps, pillows, other accessories.

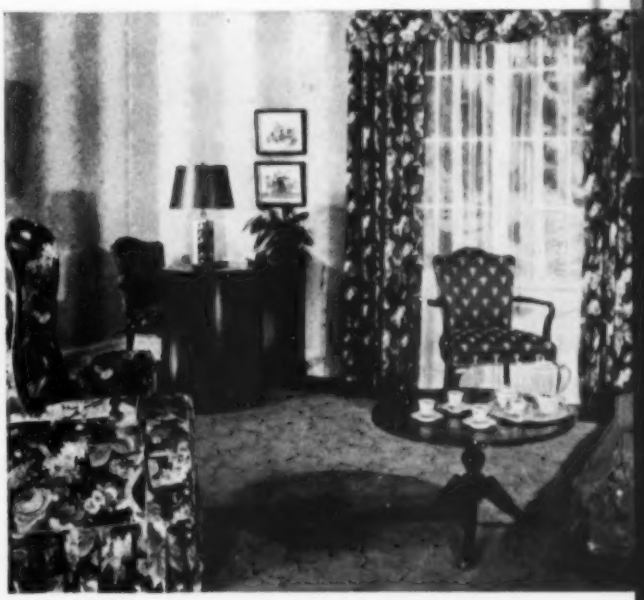
It is fun to plan color schemes from the floor up. Try fabric samples on your carpet to be sure the colors you have chosen are right; then simply plan how much of each individual color you will need. *Two rooms, lower right, W. M. Whitney Co., Albany, N. Y.*

floor up

This is a very bold floral carpet. If you select one like this, it should provide the only pattern in your room. Use solid colors appearing in the carpet for upholstery fabrics, paints, wallpapers, and for the room's draperies

Here is allover figured carpeting. Because carpets like this are so "busy" in themselves, use only solid colors—no patterns—with them. The blue-green in this carpet seemed the easiest-to-live-with color, so it was used for walls. The brighter colors—red and yellow—were used for the draperies, chairs, pillows, and for the accessories

Plain gray and beige probably are most practical carpet colors. They permit unlimited color schemes, don't show soil readily. With plain carpeting, use one pattern, one stripe, and solid colors



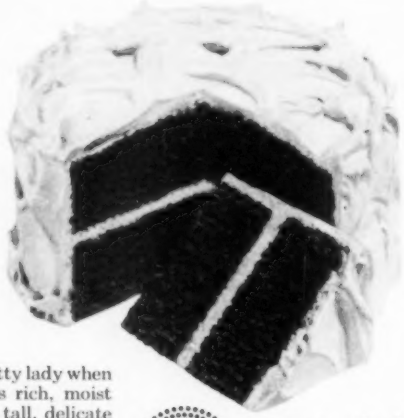
Here's a two-tone pattern in rose. Notice that only one bright floral is used with it—for draperies and a slipcover. Walls and rest of furniture are in solid colors which harmonize with carpet and with the draperies. **END**

Pillsbury
White Cake Mix

Pillsbury
Chocolate Fudge
Cake Mix

"She Bakes Like An Angel"

that's what your family will say when you serve them magnificent cakes like these



MILK
is all you add

You'll be a proud and pretty lady when you parade in with this rich, moist chocolate fudge cake or tall, delicate white cake. Both are easy, quick to make. Pillsbury provides finest ingredients. You merely add milk. Make both of these cake beauties soon.

Pillsbury BEST Mixes

You and Ann Pillsbury can make a great team

Ann Pillsbury has developed these new cake mixes in *her* kitchen to save you time in *your* kitchen, and give you perfect results every time.

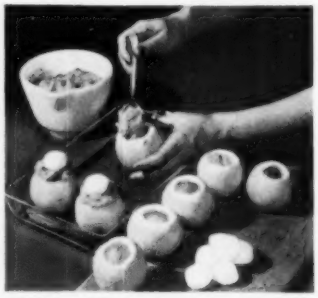
2 NEW Pillsbury CAKE MIXES

WHITE AND CHOCOLATE FUDGE

3 Original Rogers Silverplated Teaspoons. Exclusive Lady Ann pattern—only 50¢ and 6 coupon values. Send to Pillsbury, Box 150, Minneapolis, Minn. Write for free premium booklet on Pillsbury Premium Plan. Savings up to 50% on complete silverware service and other valuable articles. Extra Value coupons with all Pillsbury packages.

Tips for the cook

Ideas that add sparkle to meals and make food preparation simpler



● Add orange juice to sweet potatoes, and whip until fluffy. Season with butter, salt. Spoon potatoes into orange shells; top with marshmallows. Bake to brown marshmallows

● Here's new life for leftover sandwiches! Just butter them generously on both sides and toast in a preheated grill or in a heavy frying pan until the slices are golden brown

● Animal-cooky surprises for young lunch-box carriers! Pour melted semisweet chocolate in greased dish. When chocolate is partly firm, stand animal crackers in rows. Mark in desired sizes; cut into bars when firm

● For a change, use your gingerbread-boy cooky cutter on sugar-cooky dough. Then you can decorate the dapper little men with bits of semisweet chocolate. Um-m, so good!

● When hot weather comes, serve cool drinks in frost-capped glasses. To get a "frosty" effect, dip the tops in unbeaten egg white, swirl them in sugar. Let stand till dry

● Try these novel salads for a birthday party. Apply softened cream cheese to cranberry gelatine squares to simulate a gift package tied with ribbon. They're delicious

● Keep your old, discarded powder puffs near the sink where they'll be handy to use for scrubbing dirty pots and pans. Just shake the scouring powder on the puffs and you'll save wear and tear on dishrags. **END**

Cooking was never such fun before—

SUCH FUN *to watch things come out right!*

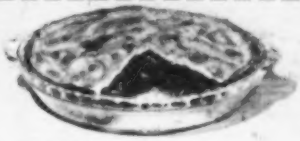
With *this* saucepan, you can see what's going on! Food's almost *bound* to turn out perfect! Snap off the handle, and use the saucepan as a beautiful serving dish! 2½ times as strong as ordinary glass!

PYREX SAUCEPAN 1½-qt. size **$2.25**

SUCH FUN *to use these new Pyrex beauties!*

The handsomest baking and serving dishes ever! In gay red or yellow —for oven baking, for serving salads, soups, desserts.

PYREX HOSTESS SET (2½-qt. bowl, four 12-oz. dishes, gift boxed.) **$2.95**
2½-qt. open bowl **$1.39** each. Individual dishes **39¢** each



SUCH FUN *to save dishwashing time!*

You save dishwashing when you use Pyrex ware because one dish serves as three . . . take the same dish from oven to table, then use it to store leftovers in the refrigerator. And with its smooth surfaces, it's so easy to wash clean!

PYREX PIE PLATE 9-inch "Flavor-Saver" **59¢**

PYREX FLAMEWARE
for top-of-stove cooking
PYREX OVENWARE
for baking and roasting

"Corning," "Pyrex," and "Double-Tough" are trade-marks in the U. S. of Corning Glass Works, Corning, N. Y.

PYREX
If it's Pyrex ware the trade-mark is on it
WARE

A Product of
CORNING GLASS WORKS

3 WAYS to get that rich world-famous WALTER BAKER flavor!

1. Use BAKER'S Premium No. 1 Chocolate for glorious cakes like this!

When you really want to *show off* your cooking ability—use Baker's Premium No. 1 in chocolate recipes! For this gorgeous Devil's Food Cake follow the recipe on the Premium No. 1 package. For the Chocolate Frosting also use package recipe. Then combine ¼ cup chopped nuts with ½ cup frosting. Spread between layers. Frost top and sides with remaining frosting; decorate with ¼ cup nuts.

2. Use BAKER'S 4 in 1 for Quick Cocoa treats. It's new! It's Sweet! And you'll love it!

Baker's 4 in 1 combines cocoa and sugar so that tiny hollow particles actually *burst* the minute liquid is added—releasing wonderful, rich Walter Baker flavor. So quick, so easy and actually *costs less!* Try Baker's 4 in 1 *today!*

Baker's 4 in 1 makes

BETTER INSTANT COCOA than sweet milk cocoas.

BETTER QUICK CREAMY FUDGE than chocolate fudge mixes.

BETTER QUICK FROSTING than chocolate frosting mixes.

BETTER QUICK CHOCOLATE SAUCE than chocolate flavored syrups.

3. Use BAKER'S Chocolate Chips for your favorite Cooky recipes

Baker's Chocolate Chips taste better and bake better! They're *specially processed to stay firm and crunchy right through baking!* Make the Baker's Chips recipes on the package—they're *de*-lightful!

Products of General Foods

CHOCOLATE-LOVIN' FOLKS ENJOY THE WHOLE WALTER BAKER FAMILY!

DOT CHOCOLATE • 4 IN 1 SWEET COCOA MIX • GERMAN'S SWEET CHOCOLATE • BREAKFAST COCOA • SEMI-SWEET CHOCOLATE CHIPS • PREMIUM NO. 1

Marshmallow Cream Pie

One 8-inch pie

Combine in top of double boiler:
- **½ cup sugar**
- **⅓ cup flour**
- **⅓ teaspoon salt**

Stir in . . . . **1½ cups milk,** scalded
Cook 10 minutes, or until thick.
Add . . . . . **1 well-beaten egg**
Cook 2 minutes; remove from heat.
Stir in . . . . **12 marshmallows,** quartered
- **2 teaspoons butter**
- **½ teaspoon vanilla**

Cool.
Pour into baked, 8-inch pie shell.
Garnish with **fresh** or **canned fruit.**

—*Mrs. Homer Foust, Pennsylvania*

Peach Cream Pie

One 9-inch pie

Combine **¾ cup sugar**
- **2 tablespoons flour**
- **¼ teaspoon salt**

Beat in . . . **1 cup sour cream**
- **1 slightly beaten egg**
- **½ teaspoon vanilla**

Add . . . . . **2 cups sliced peaches**
Pour into pastry-lined, 9-inch piepan.
Bake at 400° (hot oven) 15 minutes; then at 350° (moderate) ½ hour.
Remove from heat.
Top with mixture of
- **⅓ cup sugar**
- **⅓ cup flour**
- **¼ cup soft butter**
- **1 teaspoon cinnamon**

Bake at 400° (hot oven) 10 minutes.

—*Mrs. F. A. Springborn, Wisconsin*

Date Cream Pie

One 8-inch pie

Combine in top of double boiler:
- **¼ cup sugar**
- **¼ cup flour**

Blend in . **2 slightly beaten egg yolks**
- **½ cup milk**

Stir in . . . **1½ cups milk**
- **⅛ teaspoon salt**

Cook 10 minutes, or until slightly thick.
Add . . . . . **1 cup chopped dates**
- **¼ teaspoon orange extract**

Cook 5 minutes, or until thick; cool.
Pour into baked, 8-inch pie shell.
Spread . . . **egg-white meringue** on top
Bake at 350° (moderate oven) 15 minutes.

—*Mrs. Russell Lane, Minnesota*

Sea food main dishes

When Lenten appetites lag, it's time to treat your family to one of these new fish recipes

Fish Chowder Casseroles

Serves 6

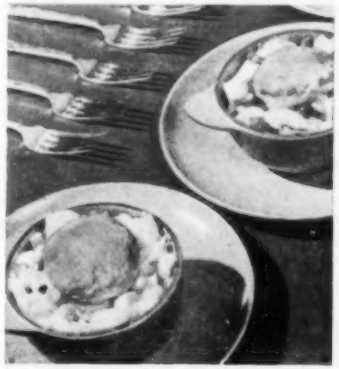
Cook . . . . . **1 cup chopped onion** in
- **¼ cup butter**

Blend in **3 tablespoons flour**
Stir in . . . **1½ cups milk**
- **½ cup liquid drained from vegetables**

Cook until thick and smooth.
Add . . . . . **1½ cups cooked fish (halibut, whitefish,** or **perch),** flaked
- **1 cup cooked, diced potatoes**
- **¾ cup cooked, diced carrots**
- **¾ cup cooked peas**
- **1 teaspoon Worcestershire sauce**
- **1½ teaspoons salt**
- **¼ teaspoon pepper**

Pour into 6 greased, individual casseroles or one 3-quart casserole.
Top each one with a round of **unbaked biscuit dough**
Bake at 425° (hot oven) 20 minutes.

—*Mrs. Fred Oliver, Ohio*



Baked Tunaroni

Serves 8

Blend . . . . **2 tablespoons butter,** melted
- **2 tablespoons flour**

Stir in . . . . **2 cups rich milk**
- **2 teaspoons curry powder**
- **¾ teaspoon salt**

Cook until smooth and slightly thick.
Add . . . . . **1 7- or 8-ounce box elbow macaroni,** cooked
- **2 7-ounce cans tuna,** flaked
- **¾ cup grated nippy cheese**
- **¼ cup chopped onion**

Pour into greased ramekins; top with
- **½ cup grated, nippy cheese**

Bake at 350° (moderate oven) 30 minutes.

—*Mrs. G. McCafferty*

Tuna-stuffed Potatoes

Serves 6

Scoop out and mash contents of
6 large baked potatoes
Beat into mashed potatoes:
¾ cup warm cream
3 tablespoons butter
1 teaspoon salt
⅛ teaspoon pepper
1 7-ounce can tuna, flaked
¼ cup chopped onion
Return potato mixture to shells.
Sprinkle tops with
¾ cup grated American cheese
Bake at 425° (hot oven) 10 minutes.

—Mrs. C. E. Stender, Iowa

Sea Food Rarebit

Serves 6

Melt . . . . . **2 tablespoons butter**
Stir in . . . **¼ cup flour**
¼ teaspoon dry mustard
½ teaspoon salt
¼ teaspoon pepper
Blend in 2 cups milk
Cook until thickened; stir constantly.
Add . . . . . **1 7-ounce can tuna,** flaked
2 cups grated nippy cheese
1 teaspoon Worcestershire sauce
Cook until cheese is melted and mixture is thoroughly heated.
Serve immediately over
1½ cups heated chowmein noodles.

—Mrs. Roger R. Ambrose, Indiana

Salmon Crisps

Makes 9 crisps

Drain and flake:
1 16-ounce can salmon
Mix in . . . **1 egg,** slightly beaten
2 tablespoons milk
½ teaspoon salt
¼ teaspoon pepper
Shape into 9 oblong rolls.
Roll in . . . **½ cup fine cracker crumbs**
Place in greased shallow pan.
Pour . . . . . **¼ cup melted butter** over fish
Bake at 400° (hot oven) 25 to 30 minutes, or until golden brown.

—Mrs. Maud Conley, Iowa

Cream pies

So pretty they look like party fare, yet each one is surprisingly easy to make

French Cream Pie

One 9-inch pie

Line bottom of piepan with
1½ cups vanilla wafer crumbs
Stand . . . . **12 vanilla wafers** around inside edge
Cream . . . **½ cup butter**
1 cup powdered sugar
Beat in . . . **2 well-beaten eggs**
Spread over crumb crust.
Combine 1 cup heavy cream, whipped
1 cup chopped nuts
⅓ cup chopped maraschino cherries
1 medium banana, mashed
1 teaspoon vanilla
Spread on top of creamed mixture.
Sprinkle . . **½ cup vanilla wafer crumbs** on top to form design
Chill.

—Mrs. Martin Kuhlman, South Dakota

Ginger Bavarian Pie

One 9-inch pie

Line bottom of piepan with mixture of
1 cup gingersnap crumbs
2 tablespoons melted butter
Stand . . . . **12 gingersnaps** around inside edge
Soften . . . . **1 tablespoon unflavored gelatine** in
¼ cup cold water
Dissolve over hot water; then beat it into
2 stiffly beaten egg whites
Combine 1½ cups thick, sweetened applesauce
¼ cup sugar
½ teaspoon vanilla
Fold in . . . **¾ cup heavy cream,** whipped
Fold in egg-white mixture last.
Spoon filling into piepan; chill.

—Mrs. A. D. Trochinski, Minnesota

Look at it Outside! Look at it Inside!

You can't match a FRIGIDAIRE!

There are 10 sizes of America's No. 1 Refrigerator – offering you a wide selection from which to choose. You'll find in every Frigidaire Refrigerator new style-setting beauty created by Raymond Loewy – rugged construction – extra storage capacity in no extra kitchen space – and the simplest cold-making mechanism ever built, the economical Meter-Miser!

Look at the 1950 Frigidaire De Luxe – new outside, new inside! Note its sleek lines, finger-touch Target Latch, modern recessed base! Then look inside – at the new Super-Storage design, the Full-Width Super-Freezer Chest. There's lustrous Ice-Blue and golden trim – Double-Easy Quickube Ice Trays – twin, extra-deep Hydrators, and improved Cold-Wall cooling!

SEE ALL THESE OTHER REASONS WHY YOU CAN'T MATCH A FRIGIDAIRE!

You get New Beauty

1. New! Lustrous Ice-Blue, Gold and White Beauty – sets a new standard.
2. New! Target Door Latch – finger-tip action – locks cold in.
3. New Streamlined Design – finished in Durable Dulux; some models in Lifetime Porcelain.

You Get New Convenience

4. Extra Storage Space – in less kitchen space.
5. Extra-Large Frozen Storage Space – holds from 15 to 70 lbs.
6. Double-Easy Quickube Ice Trays – trays slide out – cubes released instantly – no melting.
7. New Aluminum Rust-proof Shelves – adjustable, sliding – more space between shelves.
8. New, Extra-Deep Porcelain Hydrators – for fruits and vegetables.

You Get New Economy—New Dependability

9. New Improved Meter-Miser – makes more cold with no more current.
10. Freon-12 Refrigerant – developed by Frigidaire and General Motors.
11. New Improved Cold-Wall Cooling – in all De Luxe and Imperial models.
12. New Sealed-in Mechanism covered by 5-Year Protection Plan.
13. This emblem on a Frigidaire Refrigerator is your assurance of safe cold from top to bottom, lasting beauty, utmost convenience proved economy features – plus General Motors' dependability and Frigidaire's 30 years' experience in building more than 11½ million refrigerating units.

3 TYPES—4 SERIES—10 SIZES
—with 4 to 17 cu. ft. storage capacity!

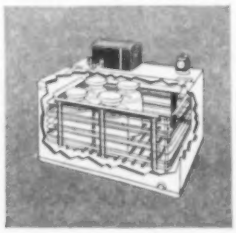
Frigidaire De Luxe models have low-temperature Super-Freezer Chest. Main compartment refrigerated by Freezer Chest and new, improved Cold-Wall cooling.

Frigidaire Imperial models have separate near-zero Locker-Top. Lower compartment refrigerated by new, improved Cold-Wall cooling with Refrig-o-plate.

Frigidaire Master and Standard models have colder-than-ever Super-Freezer. Food compartment refrigerated top to bottom by direct air circulation from Super-Freezer.

Look – the brand-new Frigidaire "Thrifty-30" Electric Range with giant oven – designed especially for farm kitchens! It's compact – only 30" wide! It's amazingly low-priced! Its oven stretches clear across the range – big enough for 6 pies or 10 loaves of bread – cooks more food with no more current. Has Frigidaire quality construction.

Look – the Frigidaire Milk Cooler that cools milk to below 50° in one hour – quickly pays for itself! Helps you get top prices for milk – keeps bacteria count low, butterfat content high. Coil-and-Rack cooler with the economical Meter-Miser is illustrated – Drop-In cooler also available. Special agitator available. 7 models – 3 to 12 cans.

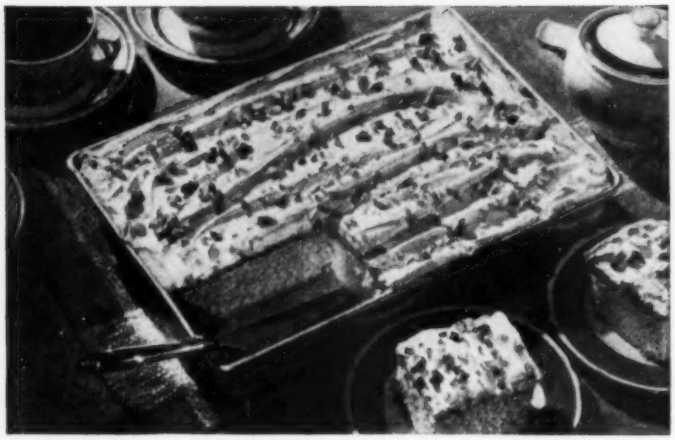


FRIGIDAIRE

Appliances for the Farm Home

Visit your Frigidaire Dealer. Look for his name in your Classified Phone Directory. Or write Frigidaire Division of General Motors, Dayton 1, Ohio. In Canada, Leaside 12, Ontario.

Refrigerators • Electric Ranges • Automatic Washer • Clothes Dryer
Electric Ironer • Food Freezers • Milk Coolers • Air Conditioners
Electric Water Heaters • Kitchen Cabinets and Sinks • Dehumidifier



Here's a dandy cake to serve...when a crowd drops in...to the kids when school's out... to a hungry husband *any time!* They'll love—*you'll* love—the way Calumet's double-action turns out perfect cakes! Does wonders for biscuits and hot breads too!

Is Homemade Cake His Weakness?

Then don't delay. You can make him pleased-as-punch with this Calumet-easy, Calumet-perfect cake.

Easy . . . definitely! You can serve this luscious cake right from the pan (bright idea for buffets, too)!

Perfect . . . of course! So tender and fine-grained Calumet's double-action gives you *double protection* by raising your batter twice. First in the mixing bowl...and later in the heat of your oven.

Once you see the *wonderful difference* Calumet's *dependability* will make in your baking, you'll never use anything else! That's why more women buy Calumet than any other baking powder.

That's why your Calumet cakes will be dreams-come-true . . . your biscuits and hot breads a taste of heaven. Try a can of Calumet today.

COUNTRY KITCHEN MERINGUE CAKE!

Preparations. Have the shortening at room temperature. Grease bottom of 13 x 9 x 2-inch pan. Start oven for moderate heat (375°F.). Sift flour once before measuring.

Ingredients:

2 cups sifted Swans Down Cake Flour
2¼ teaspoons Calumet Baking Powder
¾ teaspoon salt
1 cup plus 2 tablespoons sugar
½ cup shortening
*Milk (see below for amount)
1 teaspoon vanilla
1 egg plus 2 yolks, unbeaten

*With butter, margarine, or lard, use ⅔ cup minus 1 tablespoon milk. With vegetable or any other shortening, use ⅔ cup milk.

Now the Mix-Easy Part! (Mix by hand or at a low speed of electric mixer. Count only actual beating time or beating strokes. Allow about 150 full strokes per minute. Scrape bowl and spoon often.)

1. Sift flour once, measure into sifter, and add baking powder, salt, and sugar. Set aside.

2. Place shortening in mixing bowl and stir just to soften. Sift in dry ingredients. Add milk and vanilla and mix until all flour is dampened. Then *beat 2 minutes.*

3. Add egg and yolks and *beat 1 minute* longer.

Baking. Turn batter into pan. Bake in moderate oven (375°F.) 30 minutes, or until done. Cool cake in pan on rack about 1 hour, or until thoroughly cooled.

Topping. Spread Meringue Cake Topping lightly over cool cake in pan and sprinkle with nuts or coconut. Bake in moderate oven (375°F.) 20 minutes, or until lightly browned. Cut and serve directly from pan, if desired. Serve warm or cold.

Meringue Cake Topping

Beat 2 egg whites and dash of salt until foamy. Add ½ cup sugar, 2 tablespoons at a time, beating after each addition until sugar is blended. After all sugar is added, continue beating until mixture will stand in peaks. If desired, add ¼ teaspoon almond flavoring and blend.

CALUMET BAKING POWDER

Double-acting for Double-sure Success

A product of General Foods

All made from cereals

[*From page 40*]

Frosted Berry Pie

Serves 6

Combine ½ **cup light corn syrup**
4 tablespoons sugar
½ **teaspoon salt**
1 tablespoon butter
Cook to soft-ball stage or 236° on candy thermometer.
Remove from heat.
Add ½ **teaspoon vanilla**
Pour syrup over
4 cups slightly broken corn flakes
Toss lightly.
Line well-buttered 9-inch piepan with mixture, pressing to edges.
Cut crust for individual servings immediately after shaping it.
Cool crust before adding filling.
Arrange in corn-flake crust
3 cups whole red raspberries (fresh, frozen, or canned, and thoroughly drained)
Top berries with **Frosting,** leaving center open.
Pile raspberries high in center.

Frosting

Combine in top of double boiler:
1 unbeaten egg white
1 cup sugar
¼ **cup water**
⅛ **teaspoon salt**
½ **teaspoon cream of tartar**
Cook over boiling water, beating constantly, until mixture forms soft peaks, about 7 minutes.
Remove from heat.
Add **1 teaspoon vanilla**
Beat until cool and thick.
Spread over berries.

Candied Pears

Serves 6

Crush . . . 2½ **cups corn flakes** slightly
Combine **3 tablespoons lemon juice**
¼ **cup melted butter**
¼ **cup sugar**
Dip . . . . . **6 large canned pear halves** in butter mixture
Roll butter-coated pears in corn flakes.
Arrange pears, cut side up, on shallow baking pan.
Bake at 375° (moderate) for 20 minutes.
Top with **Lime Sauce** made as follows:
Beat . . . . . ⅓ **cup powdered sugar** into
1 cup sour cream
Add . . . . . **2 tablespoons lime juice** or
½ **teaspoon lime flavoring**
2 drops green vegetable coloring
Garnish with **cherries**
Top with **sweetened whipped cream** instead of **Lime Sauce** if desired. END

Send us your recipes

Do you have a recipe to submit for testing in our kitchen? *Successful Farming* pays $5 for each recipe published on the Successful Recipes pages. Please write on only one side of the paper. We cannot return unused recipes.—Editors

Fruit salad recipes

[*From page 45*]

Cinnamon Apple Star
Serves 6

Pare, core
6 **apples** (leave whole)
Cook ..... ½ **cup red cinnamon candies**
¼ **cup sugar** in
2 **cups water,** until dissolved
Add whole apples and cook slowly until apples are transparent but not soft.
Chill.
Cut each apple in sixths to within ½ inch of bottom.
Make a mixture of
cream cheese
chopped walnuts
celery
Add enough **mayonnaise** to moisten
Stuff apples.
Top with **chopped nuts.**

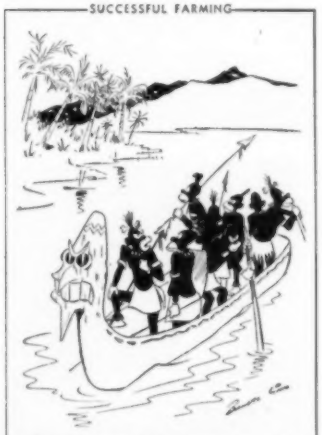
Fruit Ginger-Ale Ring
Serves 6 to 8

Soften . 1 **tablespoon** (1 envelope) **unflavored gelatine** in
2 **tablespoons water**
Drain .... 2½ **cups** (No. 2 can) **fruit cocktail**
Heat syrup drained from fruit cocktail to boiling.
Pour over gelatine; stir until dissolved.
Cool.
Add ..... 1 **cup ginger ale**
Chill until partly set.
Add drained fruit cocktail.
Pour into oiled individual ring molds.
Chill until firm.
Top with **Fruit-Salad Mayonnaise**
Serve immediately.

Fruit-Salad Mayonnaise
Makes about 1½ cups

Combine ½ **cup mayonnaise**
2 **tablespoons lemon juice**
¼ **cup sifted confectioners' sugar**
Fold in ... ½ **cup heavy cream,** whipped
Serve at once. **END**

SUCCESSFUL FARMING



"What do you think about this unification of armed forces business?"

for EASIEST portability ...try HAMILTON BEACH!

now with Pyrex Ware bowls!

PYREX MIXING BOWLS! *Mix, bake, serve,* and *store* in the *same* bowl—less dishwashing! Always-useful Pyrex Ware is washable in *hot* water—more sanitary! Compare!

EASIEST PORTABILITY

New, lighter beater unit glides off the stand for use *anywhere.* No triggers, catches, or latches. Easy off, easy on . . . with *one* hand. Compare!

EASIEST OPERATION

The hand that holds the mixer sets the speed. Leaves your other hand free to hold a pan or add ingredients. Compare!

EASIEST SPEED CONTROL

MIXGUIDE puts 10 tested speeds right under your thumb, right under your eye—magnified for flash reading. Compare!

$34.25

($34.90 Denver—West.) Includes two Pyrex bowls and extra single beater.

BOWLS NOW PYREX!

JUICE EXTRACTOR $4.25 ($4.35 Denver and West.)

EASIEST JUICING

Juice, strained free of seeds and pulp, flows directly into serving glass. Nothing extra to wash. Extractor lifts out for easy cleaning. Rustless. Compare!

EASIEST BOWL CONTROL

Shifts ever-turning Pyrex bowl while beaters revolve. Gives even mixing without stopping the motor or touching the beaters. Compare!

TRY HAMILTON BEACH!

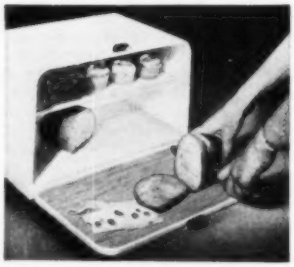
All food mixers are *not* "pretty much alike." So buy wisely—try them all. Compare feature for feature and you'll choose Hamilton Beach because it's *easiest to use!* Hamilton Beach Co., Div. of Scovill Mfg. Co., Racine, Wis.

Made by the makers of top-value Hamilton Beach Vacuum Cleaners

What's new in homemaking

[*From page 26*]

Beautybox, a breadbox featuring a built-in slicing and sandwich board with double capacity for a family supply of

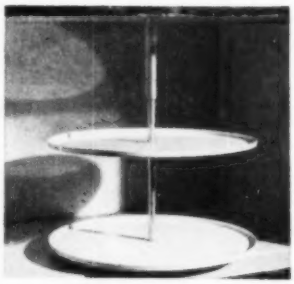


cake, bread, pastry, and rolls. When the door is open, board is handy for slicing. Removable inside shelf doubles capacity. The box measures 9x10x17 inches, has a baked-enamel finish inside and out. Available at department, hardware, and furniture stores at $4.98.

Popped corn without stirring! Special deep well gives quick action by concentrating full heat on the corn. Unit is com-

posed of three parts: cover, sturdy aluminum pan, and heating unit. Use heating unit as a separate hot plate for warming baby bottles or heating other foods. Complete unit is ideal also for preparing chili, small casseroles, custards, or Welsh rabbit. At department, hardware, appliance, and drugstores, $6.95; or postpaid from *West Bend Aluminum Company, West Bend, Wisconsin.*

Help your shelf to more space with this revolving shelf tray. Fits between any two shelves having $9\frac{3}{4}$ to $11\frac{1}{4}$ inches



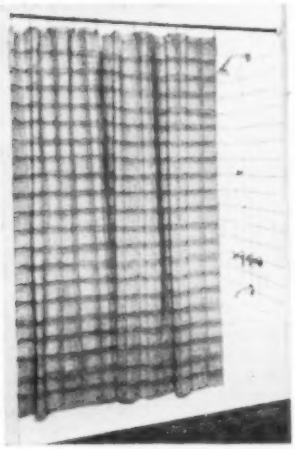
of space between them. Adjustable trays are 10 inches in diameter with a curb

all around. Pointed ends of steel center shaft act as pivots. Simply installed, without use of a screwdriver. Postpaid, $2.25, from *Miles Kimball Co., 5 Bond Street, Oshkosh, Wisconsin.*

These three big trays have a total of 7 square feet of usable space, yet weigh less than 6 pounds. The all-aluminum,

portable stepsaver folds in a jiffy and hangs in a closet when not in use. Legs are of polished aluminum, trays are of sturdy aluminum sheet. Use in the kitchen, laundry, or nursery, for serving indoors or out. Measures 31″ long, 13½″ wide, 35″ high. Available at department stores, $12, or postpaid from *Trimble, Inc., Rochester 13, New York.*

Plaid is for shower curtains. Kleinert's made these velvety-feeling, lightweight shower curtains of natural rubber



and gave them a "Fleecenap." The curtains are mildew resistant and will not sag or blow. Screen printed in attractive color combinations—subtle shades of blue, rose, peach, yellow, and green—to strike a modern note. Pastel shades make an effective background for brighter-colored, wavy stripes. In department stores at $5.95; matching tailored draperies at $5.95, or both for $11.95.

Do you have a favorite housekeeping short cut? *Successful Farming* pays $5 for each suggestion published. Send your hints to: All Around the House, *Successful Farming*. Those unused cannot be returned.—Editors.

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CONVENIENCE and ECONOMY
Get BIG SIZES!

Light fluffy pancakes in the 3½ lb., 5 lb., and 9.8 lb. sacks (West Coast only). Buckwheats with that "just-right" buckwheat flavor in 3½ lb. and 5 lb. sacks.

Get Your
Aunt Jemima·Uncle Mose
SALT'n PEPPER SET
TODAY!

- Gaily colored, long-wearing plastic.
- Both 5½" high

ONLY 50¢ and one Aunt Jemima box or sack top

On sale at most grocers. If your grocer can't supply you, mail order blank below today.

Mail this Order Blank NOW!

Aunt Jemima, Dept. 13, Chicago 77, Illinois

Please send me ..... Aunt Jemima-Uncle Mose Salt and Pepper Set(s). For each set, I enclose 50c in coin (no stamps) and 1 pkg. or sack top from Aunt Jemima Ready-Mix for Pancakes or Buckwheats. (Allow 3 weeks for delivery.)

Name .....

Street or R.F.D. .....

City ..... Zone ..... State .....

Offer good only in United States—Expires May 15, 1950. Supply Limited!

FOR GOOD LIVING

For gifts, or informal entertaining, Fostoria's *American* is a happy choice. You'll love its prismatic motif catching and reflecting rainbow colors to make your table glamorously beautiful. See *American* and you'll agree it's lovely to live with . . . and extra nice to give. Best of all, you can choose from over 180 inexpensive items in open stock at better stores everywhere, because Fostoria has a quality everyone knows.

FOSTORIA

FOSTORIA GLASS COMPANY • • • MOUNDSVILLE • WEST VIRGINIA

Like an old friend . . .

. . . good furniture is always good company. (See page 36.) The stores listed below cooperate with the Successful Farming Home Planning Service. Visit the one nearest you for furnishings help.

Illinois

Bloomington	Livingston's
Champaign	Robeson's, Inc.
Danville	Block & Kuhl Co.
Decatur	Block & Kuhl Co.
Galesburg	Block & Kuhl Co.
Peoria	Block & Kuhl Co.
Quincy	Block & Kuhl Co.

Indiana

Indianapolis	L. S. Ayres & Co.
Muncie	Ball Stores
South Bend	Robertson Bros.

Iowa

Cedar Rapids	Smulekoff's
Des Moines	Younkers
Fairfield	Bradshaws
Sioux City	T. S. Martin Co.

Kansas

Coffeyville	Long-Bell Lbr. Co.
Liberal	Long-Bell Lbr. Co.
Pittsburg	Long-Bell Lbr. Co.
Salina	Long-Bell Lbr. Co.
Topeka	Karlan's
Wichita	Hinkel's

Michigan

Lansing	J. W. Knapp Co.

Minnesota

Albert Lea	Skinner Chamberlain
Mankato	Landkamer Bros. Co.
Minneapolis	L. S. Donaldson Co.
St. Cloud	Herberger's

Missouri

St. Louis	Stix, Baer & Fuller
Springfield	Heers, Inc.

Nebraska

Grand Island	Wolbach's
Lincoln	Gold & Company
Norfolk	Ballantyne's
Omaha	Orchard & Wilhelm

New York

Albany	W. M. Whitney & Co
Geneva	Lauer Furniture Co
Rochester	McCurdy's
Watertown	Household Merit

Ohio

Ashtabula	Carlisle-Allen Co.
Dayton	The Rike-Kumler Co.
Mansfield	The M. O'Neil Co.
Springfield	Wren's

Oklahoma

Clinton	Long-Bell Lbr. Co.
Enid	Long-Bell Lbr. Co.
Oklahoma City	Long-Bell Lbr. Co.
Tulsa	Long-Bell Lbr. Co.

Pennsylvania

York	Wiest's

South Dakota

Huron	Fullerton's
Sioux Falls	Johnson's, Inc.

Wisconsin

Manitowoc	Boston Store
Milwaukee	Gimbel Bros.
Oshkosh	Boston Store

Englander

AMERICA'S MOST LUXURIOUS MATTRESS

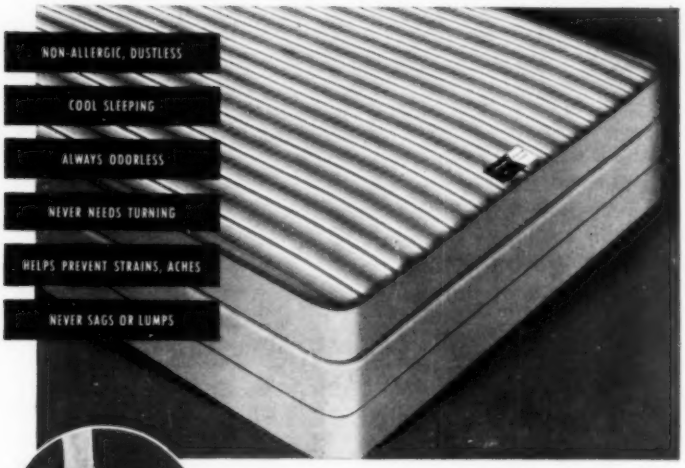
WORKING TOGETHER FOR YOUR SLEEPING COMFORT

GOODYEAR

THE GREATEST NAME IN RUBBER

Lie down and Live!

ON AN *Airfoam** MATTRESS



Also available in wood rose stripe

All the proof you need. Just press down on Airfoam. Feel how it molds itself to your hand, responds with a buoyant "uplift."

No other foundation looks like this. Joined only through the middle by flexible steel bands, each spring in the upper half is free to adjust individually to every move. Lower part acts as a unit, supports body in the manner doctors recommend.

*TM The Englander Company, Inc.

*TM The Goodyear Tire & Rubber Company

at a new low price . . . with a 20-year guarantee!

New . . . an Englander Mattress of Goodyear's Airfoam for $59.75

Such highflown luxury at such a down-to-earth price is possible only because Englander and Goodyear put their heads together to bring you an *Airfoam* mattress for no more than a good innerspring mattress costs. On Airfoam you sleep on *air*. Millions of air cells suspend you, cradle you, give you a floaty feeling that's next door to paradise. It really is "the new sleep."

When used with Englander's special Red-Line* Foundation, whole unit guaranteed for 20 years

A box spring just isn't good enough for an Airfoam mattress. The last word in comfort calls for a *special* foundation. Englander engineers have designed just such a support—the Englander Red-Line Foundation. So scientifically matched are they that we guarantee them for 20 years against any defects in material or workmanship when used together.

Both for the price of a conventional mattress and box spring— $119.50

Other Englander Red-Line mattresses and companion box springs (both twin and full size) from $39.75 to $79.75.

in mattresses . . . *Only in an Englander can you get Airfoam by Goodyear*

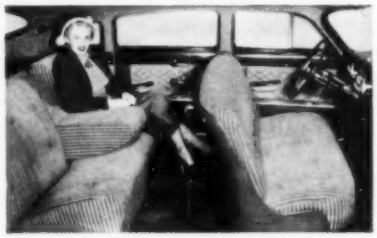
Announcing NEW 1950 HUDSONS

WITH "THE NEW STEP-DOWN RIDE"

Illustrated—Custom Commodore Series 4-Door Sedan

Here are 1950's most beautiful automobiles • The only cars with "step-down" design, which provides America's lowest center of gravity, and the steadiest road-hugging ride ever known • Along with more room than in any other car • Here's the added safety of Hudson's exclusive Monobilt body-and-frame* • The high-compression performance of America's most powerful Six • Or an even more powerful Eight • And all-range Super-matic Drive† • Here, in short, are unique features that enable Hudson alone to bring you "The New Step-Down Ride"!

†Optional at extra cost. *Trade-mark and patents pending.



They're ready for you now!

Beautiful, streamlined New Hudsons for 1950 that afford you an exciting motoring experience—"The New Step-Down Ride"!

This is the delightfully different kind of ride that cradles you in the lowest-built car of them all!

You instantly see that these New Hudsons have the lowest center of gravity in any American automobile—and as a result, you know instinctively as you view them, that they hug the road more tenaciously and are therefore America's best-riding, safest cars!

You quickly see, too, that these low-built Hudsons for 1950 have full road clearance, and more head room than in any mass-produced car—thanks to "step-down" design with its recessed floor!

And amazing head room is only one kind of spaciousness you'll find in these great cars! Through "step-down" design and ingenious use of space that is wasted in other makes, these new, streamlined Hudsons of normal exterior width bring you seat cushions that are *up to 12 inches wider* than those in cars of greater outside dimensions!

In fact, you'll find the New Hudson has more room than any other car.

And, you'll enjoy the high-compression, get-up-and-go performance of your choice of two of the greatest engines in a long line of great Hudson engines—the Super-Six, America's most powerful Six, or the even more powerful Super-Eight!

But all of this only highlights "The New Step-Down Ride"—an experience so delightfully different you have to try it yourself to fully appreciate it! Your Hudson dealer invites you to try these great new cars soon. Hudson Motor Car Company, Detroit 14.

NOW—3 GREAT SERIES

Custom Commodore, Famous Super, Lower-Priced Pacemaker

AVAILABLE WITH NEW

SUPER-MATIC DRIVE†

Hudson brings you no-shift driving with Super-matic Drive, which includes the fuel economy of overdrive—the only transmission that shifts gears for you just as you want, doesn't creep when starting or after stops, doesn't slip as you roll along, and can be converted to manual operation at the touch of a button.

★ ★ ★

ONLY HUDSON, THE CAR WITH "THE NEW STEP-DOWN RIDE", BRINGS YOU THESE ADDITIONAL FEATURES . . . ***Chrome-alloy*** motor blocks which minimize wear and reduce upkeep costs . . . ***Triple-Safe Brakes***—finest hydraulic system with reserve mechanical system on same pedal, plus finger-tip-release parking brake . . . ***Fluid-Cushioned Clutch*** . . . ***Wide-arc vision*** with Curved Full-View windshield and rear window . . . ***Weather-Control***†—Hudson's heater-conditioned-air system . . . ***Super-Cushion tires*** . . . ***Safety-Type*** wide rims . . . ***Center-Point Steering*** and more than 20 other high-performance, long-life features that help make "step-down" designed Hudsons leaders in resale value, coast to coast, as is shown by Official Used Car Guide Books!

†Optional at extra cost.

Need spring pasture? Use your grainfields!

By Allen Pryor

One acre of good small-grain pasture is capable of producing 600 pounds of protein, or the equal of nearly 1,200 pounds of cottonseed meal.

This finding is made by Hi W. Staten and V. G. Heller of Oklahoma A and M.

Staten and Heller say the production of 2,000 pounds of dry feed—not unusual for one acre of good small-grain pasture—means the equivalent of 1,200 pounds of cottonseed meal or other similar high-protein supplements.

"Winter-pasture crops are more valuable than many farmers suspect," the two men say. Five years of research support that statement.

Winter-pasture crop comparisons were made on a soil generally considered to be a good type for wheat production. The crops were seeded at rates for pasture rather than for grain. Planting rates per acre were: Wheat and rye, 1 bushel; barley, 2 bushels; oats, 2½ bushels; and annual ryegrass, 25 pounds. As on a farm, date of planting was early to get fall pasture. Dates varied between September 6 and September 15 during the five years. Summer fallowing was practiced to conserve moisture.

Agronomist Staten points out that forage yields were determined by clipping the test plots with a lawn mower to a height of about one inch every time the grass reached a good height for grazing, or when about three to five inches. The trampling and packing of the plots by men operating the lawn mowers is believed to have been very similar to the trampling of pasture by livestock.

The agronomist says annual ryegrass and 20 varieties of six small-grain crops were grown and compared for forage yields, nutritive value, and effect of simulated grazing on grain yield.

Heller, in agricultural chemical research tests, found that protein content of small-grain and annual ryegrass forage, when young, green, and succulent, is high—about 30 percent or more (dry matter basis). This compares with around 42 percent in the usual high-protein supplements. From this result, it seems probable that no protein supplement would be needed by animals grazing such well-managed pastures.

The carotene content is exceedingly abundant. This is an important point, for winter rations are often seriously lacking in carotene. The forage also is high in minerals and in vitamins of the B group. Fiber is low—about the same as in alfalfa leaf meal.

Another result obtained by Heller concerns small-grain and annual ryegrass forage. He says the protein, vitamin, and mineral content is so high, when cut at the stage of most rapid growth, that it apparently would be a valuable supplement—if dehydrated—for other feeds.

If these results are so good—would it pay to pasture out and forget the grain? Staten gives this answer: The pasture value of winter small grains is so high that livestock farmers might profitably use them entirely for pasture, without taking a grain crop. However, Staten notes that grain yield is not seriously affected by grazing done before plants reach the stooling stage of growth.

Livestock, he says, is usually removed from small-grain pasture when the plants

[*Turn to page 66*

This pasture is the nearest thing you'll ever get to free feed! Repeated tests have shown pasturing doesn't lower grain yield, unless you leave the cows on too long

Motors made for BETTER SERVICE Motors made for LONGER LIFE

Hoover Electric Motors perform like champions and last for years because they're built like motors costing far, far more. Stator cores are laminated electrical silicon steel, with coils dipped in high-grade varnish and baked under infrared lamps. Such processing is typical of workmanship that has made Hoover Cleaners famous for forty years. It's one reason folks say, "Whatever your requirements for farm or home, hitch up a Hoover and you hitch up the best!"

A typical Hoover capacitor-start motor for hard-starting, continuous-duty applications. Split-phase and polyphase motors are also available.

Check these features of the Hoover line

- *Capacitor-start, split-phase and polyphase types*
- *Ratings from ¼ to 1½ H.P., some with double-end shafts*
- *Single or dual voltage, 1725 or 3450 R.P.M.*
- *Ball or sleeve bearings*
- *Rigid or resilient mounts that meet NEMA specifications*
- *Service and parts available from authorized agencies and dealers*

HOOVER® MOTORS

Product of
Kingston-Conley Division
THE HOOVER COMPANY
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Plant Genuine PFISTER HYBRIDS

LIQUID COATED SEED

FOR GERM PROTECTION

WHY GERM PROTECTION — A special liquid coating protects your Genuine Pfister Hybrid seed when planted in cold, damp soil. Germ-protected hybrids resist destructive fungi . . . soil organisms which can attack and damage the germ of the seed.

HOW LIQUID COATING IS APPLIED — Just prior to sacking, Genuine Pfister Hybrids are treated with a liquid coating which dries almost instantly. The coating stays on, won't rub off easily.

TESTS PROVE GERM-PROTECTION — Genuine Pfister Germ-Protected Hybrids are tested in the field and in the Cold Test Room, where various spring growing conditions are simulated. These tests show that the fine germination, growth and vigor of Genuine Pfister Hybrid seeds are protected by the liquid coating.

PROFIT-PROTECTION — Germ-protection is profit-protection. Genuine Pfister Germ-Protected Hybrids get off to a strong, early start . . . the stalks feed the ears to full maturity and extra yield. Ask your P.A.G. dealer about "Germ Protected" Genuine Pfister Hybrids for planting on your land.

LISTEN TO "YOUR LAND AND MY LAND"

WHO — 1040 K. C. — 7:20 A. M. Tues., Thurs., & Sat.
WLS — 890 K. C. — 6:30 A. M. (C.S.T.) Mon. & Wed.
WRFD — 880 K. C. — 7:15 A. M. Mon., Wed. & Fri.
KCMO — "THE FARM EDITOR" — 810 K. C. — 6:50 A. M. Tues., Thurs. & Sat.

EVERYTHING FOR TOP PERFORMANCE IN EACH BAG OF

Genuine PFISTER HYBRIDS

Copyright—Pfister Associated Growers, Inc. 1949.

PFISTER ASSOCIATED GROWERS, INC. AURORA, ILLINOIS

Need spring pasture?

[*From page 65*]

begin to stool—that is, to spread out and get ready to send up stems.

The stooling period usually occurs at Stillwater, Oklahoma, about March 10 to March 15 in the case of rye; March 15 to 25 for barley and wheat; and about April 1 for oats. The dates will vary with your location and the kind of season.

About 10 to 12 days after the plants stool out, they begin to joint. This is the dangerous stage of growth for much heavy pasturing, if a worthwhile grain yield is to be taken.

Some Oklahoma farmers have reported a 50-percent reduction in dry feeding costs by sowing temporary winter pasture. A good mixture for both early-fall and late-spring pasture would include either barley or rye, winter oats, and annual ryegrass, according to Staten.

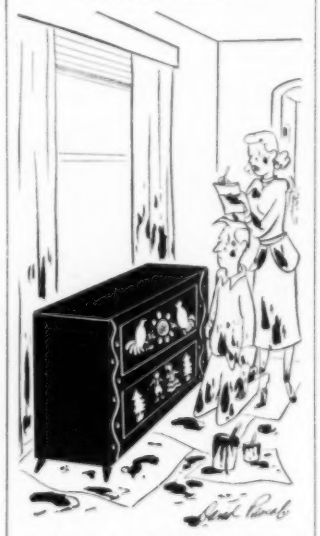
A good mixture for producing pasture through the longest possible season would be a mixture of barley or rye with ryegrass, or with winter oats and ryegrass, Staten says. Rye, he adds, is far more winter hardy than the other crops. It will stay green and sometimes continue to grow throughout the winter, especially if covered with snow.

Barley is usually ready for pasturing 10 days to two weeks before wheat, oats, or ryegrass, and about one week ahead of rye, Staten reports. Both rye and barley produced much more fall pasture than did oats, wheat, or ryegrass.

Phosphorus was present throughout the clipping season in amounts adequate for animal nutrition, Heller says, despite the fact this forage was grown on land where phosphate fertilizer produced a definite increase in plant growth.

"Calcium was somewhat low, but it can be easily supplied in the form of ground limestone. It is also present in most of the roughages usually fed with small-grain pasture," Heller explained. **END**

SUCCESSFUL FARMING



"Excluding our clothes, the draperies and rug, we save $1.22."

hundreds report . . .

"3¼ TO 4-POUND CHICKENS IN 10 to 12 WEEKS . . ."

Over 27 million chicks given thrifty, "jet-power" start with new, high-energy, low-fibre mash made with MoorMan's Chick Mintrate*

Not until last year—when MoorMan's introduced new Chick Mintrate—could so many poultry raisers use *their own yellow corn* for a starter with the high-energy . . . the potency . . . the fast-starting growth power that this new 43% Mintrate makes possible.

This new starting mash is so super-charged with energy that chicks get off to a flying start—continue this thrifty, extraordinary development to 3¼ to 4 pound birds 2 to 3 weeks sooner than on average commercial feeds.

A Meat and Bone Building Combination— **MoorMan's Chick Mintrate* is a newly-developed combination of meat and bone building proteins, minerals and vitamins. It contains 7 balanced proteins—is extra rich in nourishing, chick-building animal and sea-food proteins. It's packed with *many* thrift and growth vitamins—*A and D, pantothenic acid, riboflavin, niacin, and choline. AND* it contains MoorMan's famous Poultry Minerals with *13 essential ingredients.*

Easy to Feed—Low in Cost—*Just use your own good yellow corn* (2 parts corn—1 part Chick Mintrate) to make your own low-cost starting mash. Users say their mash costs less because they buy no unnecessary bulk—no "filler"—no grain. Total fibre in the *complete* starting mash you make with your own grain and Chick Mintrate is *less than* 3%.

Ask your MoorMan Man for power-packed, high-energy Chick Mintrate which thousands of poultrymen fed to more than 27,000,000 chicks last year. If no MoorMan Man is available, write Moorman Mfg. Co., Dept. R-1, Quincy, Ill.

MoorMan's (Since 1885)

MAKERS OF PROTEIN AND MINERAL CONCENTRATES FARMERS NEED, BUT CANNOT RAISE OR PROCESS ON THE FARM.

Thumbs down

ON DRAFTS AND DUST . . . CHOOSE SILENTITE WINDOWS

Look ahead to a lifetime of freedom from chilling drafts . . . freedom from dust that filters in to soil curtains, walls and draperies . . . when you choose Silentite windows. For here is a truly weather-tight, dust-tight window—so easy to operate that even a child can open or close it.

Silentite, you see, is an *insulated* window—equipped with exclusive "floating" weather-strips that keep out wind and dust. Silentite windows are made of wood, because wood, too, insulates—is warm to the touch—resists "sweating." Remember, Silentite windows have no weights, cords or pulleys—won't rattle or stick.

Silentite windows come in 12 sash styles—and their cost is moderate. Mail the coupon for free booklet full of window ideas for your new or remodeled home.

CURTIS MAKES A COMPLETE LINE OF WOODWORK FOR THE MODERN HOME

1866 CURTIS WOODWORK SILENTITE PRE-FIT the "Insulated" window

Curtis Companies Service Bureau
406 Curtis Building,
Clinton, Iowa
Gentlemen:
Please send free Silentite window booklet.

Name.....

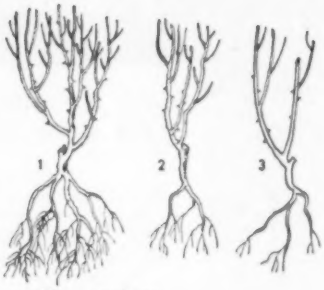
Address.....

City.....*State*.....

How to plant and grow a rose

You can grow good, healthy rosebushes on your first try if you will follow directions. Plan now where you want masses of color in your home grounds—in the flower border, in beds, at gates, fences, and driveways. Use floribunda roses for mass color effects, hybrid teas mainly for cutting. Choose hardy bush roses for borders and climbers for fences and trellises.

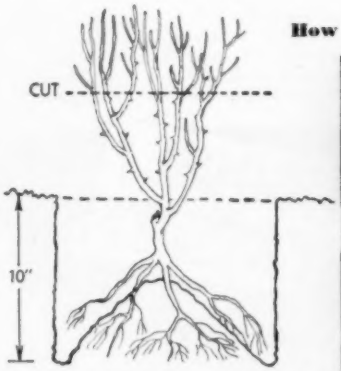
Fall planting of roses is advantageous where the winters are mild, but spring planting usually is better where rigorous winters are common.



How to buy

Ask for No. 1's (1 and 2 above) or, if picking dormant plants, take nothing poorer than a No. 1½ (3 above). Look for short shanks between the root and knob of graft, for stems ⅓" through, for unskinned bark, and 3 to 5 main roots

How to plant, step by step



Choose a spot with at least 4 hours sun a day and quick surface drainage. Allow 20 to 24 inches between bushes. Dig out soil at least 10 inches deep. Form soil cone on bottom; spread rose roots over cone. Use best topsoil next to roots. Half-fill hole with water; wiggle the bush; finish with topsoil

1. Before planting the rose, cut off broken roots just back of the break with sharp shears, as shown. Cut off the very tips of the roots; head back any scraggly roots

2. Make a cone of soil in hole. Adjust height of soil cone so joint (bud union) is 1 to 2 inches above soil surface in mild-weather areas, even with surface in colder areas

3. Spread roots carefully over soil cone. Fill hole more than half with soil; jiggle plant to sift soil close around roots. Tramp soil; your weight sinks joint to right depth

More on page 111

SEE THESE BEAUTIFULLY STYLED NEW CARS AT YOUR CHRYSLER DEALER TODAY

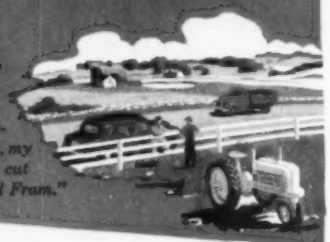
PUNCH LINE FOR 1950

New...New...New CHRYSLERS with all-new beauty inside and out!

They're Now On Display . . . Come, see them today! . . . cars of *surprising* new beauty . . . cars *deliberately styled* to look new all the way through! New longer, lower, lovelier lines . . . stunning new interiors, new nylon fabrics. Yes . . . it's *today's new style classic!* And Chrysler's kind of beauty is the beauty you really appreciate—because it reflects the sound engineering and the solid comfort inside. Again there is room to spare for your head, your hat, your legs, your shoulders. Chair-height seats. Again—the Chrysler is designed for easiest handling—for safe vision—for ease of getting in and out. See it, drive it and you'll agree, it's the smartest, most comfortable, the safest and sweetest performing car today.

Cuts Repair Costs in Half with Fram

Mid-western Farmer Reports:
"With Fram Complete Engine Protection on all my farm engines, I have fewer breakdowns . . . lower all-around operating costs. In fact, my engine repairs have been cut almost in half since I installed Fram."



Now FRAM Offers You COMPLETE ENGINE PROTECTION

1. Famous FRAM OIL & MOTOR CLEANER "cleans the oil that cleans the motor." Removes sludge and impurities manufactured inside the engine. Provides clean oil lubrication. Sizes for all farm equipment. Cartridges for all Fram and most other make filters.

2. FRAM CARBURETOR AIR FILTER uses new, more efficient method. Traps harmful field and road dust from air before it enters your engine. Low cost replacement cartridge.

3. FRAM GASOLINE FILTER removes water and solid particles from gasoline. Protects finely adjusted carburetor mechanisms. Has replacement cartridge.

4. FRAM CRANKCASE AIR FILTER replaces conventional breather cape. Really cleans air drawn into crankcase. Cartridge can be changed in seconds. But for maximum protection, the **Fram Positive Crankcase Ventilator** combines the Crankcase Air Filter with an electrically-driven blower to provide continuous, uniform crankcase ventilation to remove blow-by gases as they form . . . regardless of engine or vehicle speed.

Call Western Union by number and ask for OPERATOR 25 for the name of your nearest Fram Dealer

Handy, New Way to Buy Filter Cartridges

The sensational new Fram Farm-Pak makes it easy for you to buy a supply of genuine Fram Replacement Cartridges during busy seasons. It contains six cartridges in one carry-carton. Ask your dealer for a Fram Farm-Pak.

New, Sure Way to Check Oil and Cartridge Condition

This revolutionary Fram Lubri-Graf comes in every Farm-Pak. Just touch your dipstick to one of the spaces of the Lubri-Graf. If you can't see the colored dot through the oil . . . it's time to change the cartridge. There's a row of spaces for each piece of your farm equipment.

For Complete Engine Protection

FRAM

OIL-AIR-FUEL

FILTERS

FRAM CORPORATION, Providence 14, R.I.
In Canada: J. C. Adams Co., Ltd., Toronto, Ontario

Why just half a crop?

By Wayne T. Messerly

Which field of oats in the picture below would you rather combine—the field at the left or the one at the right? Naturally you'll choose that on the right. It went over 100 bushels an acre in 1949—the other yielded less than 50 bushels.

Both fields are located on the Louis Schuster farm in Webster County, Iowa. That's Schuster in the waist-high oats, while Floyd Peters, Webster County soil conservationist, is examining the knee-high oats.

Taken about a month before harvest time, the picture shows the importance of fertilizer and rotation in a good farming program.

The effect of weather can be discounted because the fields are separated only by a fence. Both were seeded at the same time with the same variety—Mindo. Both are also well drained, are of the same soil type, and lie as flat as they come, presenting no great erosion problem for the owner.

That leaves it up to fertilizer and rotation. Here's what made the difference:

Low-yield field—1949, oats, no fertilizer, yield 50 bushels; 1948, corn, fertilized heavily with 3-12-12, yield 100 bushels; 1947, beans, fertilized, yield 30 bushels; 1946, oats; 1945, corn. Doubtful if ever in pasture or meadow.

High-yield field—1949, oats, yield 100 bushels; 1948, corn, 125 bushels; 1947, 1946, and 1945, alfalfa and bromegrass. When seeded down, it pastured as many of the farm's 500 hogs as it would support, so received an abundant supply of well-distributed manure.

The fact that even the low-yield field produced 100-bushel corn in 1948, when fertilized, shows that its fertility is still comparatively high, despite overcropping. Schuster believes that had he fertilized it in 1949 he would have gotten a much higher oats yield. However, he did have a good sweet clover catch crop to plow under for green manure. What's more, he is now applying a 5-year rotation plan which calls for putting the low-yield field back into a crop of soil-enriching alfalfa-bromegrass. **END**

GREEN HARVEST

gives you year 'round "pasture"

When the bloom is just right, when leaves are tender and protein is at its peak . . . you are set to go with your *own* Forage Harvester.

Make the best silage you ever fed, whatever the weather. Have the advantage of green feed the year 'round. Power handles the crop all the way. Heavy pitchfork labor is eliminated from start to finish. Even the spiral knives of the Forage Harvester's wide, easy-rolling cylinder are power-sharpened by a built-in sharpener.

The Allis-Chalmers power take-off Forage Harvester is actually three machines in one, priced for home ownership on the family farm. With three inexpensive attachments, it power harvests all forage crops, tall or short, green or dry:

1. **Direct-cut attachment for grass silage, stubble, stalks.**
2. **Row-Crop attachment for corn, sorghums, tall crops.**
3. **Windrow pickup attachment for wilted or dry hay and straw.**

More livestock feed nutrients can now come from soil-building grass and legume hayland . . . at far lower cost. Your own Forage Harvester can be the most important harvesting machine on the farm. And back of it will be the skilled and conscientious service of your Allis-Chalmers dealer.

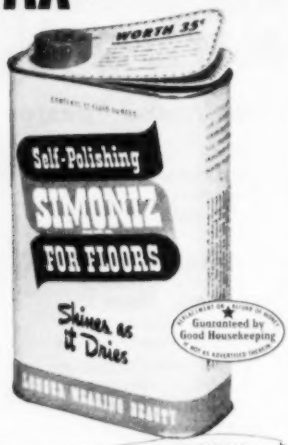
The Forage Blower's long 11½-ft. conveyor lifts up for wagon to drive through. Special new curved fan blades throw chopped forage into highest silos or haymows. Matched to the big capacity of the Forage Harvester.

FORAGE BLOWER

ALLIS-CHALMERS
TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

FORAGE HARVESTER

get
THE WORLD'S FINEST Self-Polishing WAX for your floors!



Self-polishing Simoniz OUTSHINES ... OUTLASTS THEM ALL!

Save time! Save work! Save cash—with longer lasting, water repellent, Self-Polishing Simoniz! And your floors will sparkle as never before . . withstand repeated mappings . . grow even brighter and more lovely with everyday wear! Try this liquid miracle wax—today!

Sold by grocery, hardware, variety, drug, accessory and department stores—and linoleum dealers everywhere.

THE SIMONIZ COMPANY, CHICAGO 16, ILL.

MARVELOUS FOR LINOLEUM, RUBBER OR ASPHALT TILE, TERRAZZO, FINISHED OR PAINTED WOOD FLOORS

See-through containers

For you who are tired of searching through cluttered closets and drawers, here are some tips for files with see-ability

By Bess Ritter

All you need for your filing system, in this case, is a set of glass jars. The contents may be daily used supplies or might-want-to-use-it-sometime collections. The storage place? The one nearest at hand. When you store it in glass, you *know* where it is because you can *see* it.

Here are some ideas for every work center in your home:

In the kitchen. Put sugar, dried fruits, and anything else that might get wormy, into a matched set of screw-top jars—any size you want. Paint tops to match. Shellac a decal to each and line them up on a convenient shelf.

In the sewing room. To eliminate frantic searches in the sewing room, fill small jars with easily lost items such as buttons and pins. Put them on a shelf where you can see the contents at a glance. When you need to match a button, lift the button jar and turn it until the desired button comes up.

In the workroom. Store nails, bolts, hooks, and screws conveniently out of the way in jars whose screw tops have been nailed to the underside of a shelf or table. The jars need no label—a glance tells you what they hold.

In the bedroom. Put clean powder puffs in a large, attractive jar (such as an old, widemouthed candy jar); and put bobby pins and safety pins in shallow, milk-glass containers. For a neat touch, decorate the jars in the bedroom colors.

In the bathroom. The often-steamy air of the bathroom makes glass even more valuable here. Put anything you want to keep clean and dry into jars. Drop used razor blades into another jar set out of reach of children.

In the closets. Put artificial flowers into a dustproof jar and set on the closet shelf to prevent their being crushed. Use the largest jar you can find for mothproofing wool ties, scarves, and gloves. In the cleaning closet, put oily rags in glass as a fireproofing measure.

In special storage spots. To make household twine more convenient, insert a ball of it into a jar and thread the end through a hole in the top. A glance will tell you when the supply is running low.

Keep desk supplies, such as rubber bands, postage stamps, and paper clips, neatly in order by filing them in small jars. Use a matched set and paint the tops to match your desk set. END

Give your rooms the FRESH NEW Kem-Tone LOOK!

ONLY $3.69 GALLON
One Gallon Does Average Room

NOW.. twice as easy! twice as fast! twice as beautiful!

Applied the new ROLLER-KOATER way!

You've *never dreamed* walls could be so beautiful! So rich in color! So softly luxurious in texture! So uniform and perfect—unmarred by brush marks!

You're in for a real *thrill—several thrills*—next time you use KEM-TONE, the miracle wall finish. Applied with the new Super-Cushion ROLLER-KOATER, you'll find the job goes *twice as easy, twice as fast.* You simply *roll* the paint on—up and down, then across. It's like *two coats in one.* And there's no messy dripping.

Give your living room, your dining room, your bedrooms the "fresh, new KEM-TONE look"! Apply over paint, plaster or wallpaper. One coat covers most surfaces, dries in an hour. Costs so little—only $3.69 a gallon—and a gallon of KEM-TONE makes a gallon and a half of paint ready to apply. See the lovely new KEM-TONE colors at your dealer's today.

For Walls and Woodwork in Kitchens and Bathrooms... for Woodwork Everywhere

KEM-GLO THE MIRACLE LUSTRE FINISH

LOOKS AND WASHES LIKE BAKED ENAMEL

Ready to use . . . Covers most surfaces in one coat
No primer or undercoater needed . . . Dries in 3 to 4 hours
10 Beautiful Colors and White that really stays white

THE MAKERS OF KEM-TONE AND KEM-GLO LEAD THE WORLD IN PAINT RESEARCH!

The Sherwin-Williams Co., Cleveland
Acme White Lead & Color Works, Detroit
The Lowe Brothers Co., Dayton
John Lucas & Co., Inc., Philadelphia
The Martin-Senour Co., Chicago
Rogers Paint Products, Inc., Detroit
W. W. Lawrence & Co., Pittsburgh

SOLD AT LEADING PAINT, HARDWARE AND DEPARTMENT STORES

Dress beautifully, and cut clothing costs in half!

YOU CAN DO IT WITH A NEW SINGER SEWING MACHINE

TAKE THIS lovely wool dress. Smart style, fine fabric, expensive detail. You'd be lucky to buy it for $30 or $35.

But you can *make* it for less than half that price. Make it easily—with one of the new SINGER* Sewing Machines. They're the smoothest stitchers that ever flew down a seam. Portables from $89.50,† cabinet electrics from $147.50.†

See the new models now. And whenever you want notions, lessons, service, call on your SINGER SEWING CENTER.

• **For smooth-stitching dependability,** no other make can match SINGER. And you can always get service and supplies from any of a thousand SINGER SEWING CENTERS. Above is newest console.

• **Going modern?** You'll like this SINGER desk-model machine with roomy drawers, matching stool. SINGER has lovely period styles, too. Colonial, Queen Anne, console—all in finest woods.

• **Notion shopping is simple**—at your SINGER SEWING CENTER. You'll find thread, scissors, trimmings—and the wonderful new "SINGER Sewing Book," with 1000 how-to-sew illustrations.

• **Best-seller among machines**—SINGER* Featherweight Portable. Weighs 11 lbs. Comes in neat case. Stitches forward, backward, even over pins; has all features of full-size model.

• **With new machine,** you get a SINGER course in home dressmaking or decorating plus basic SINGER attachments—at no extra cost. SINGER* Molded Dress Form, above, makes fitting easy.

Plaid jacket dress above is made from Butterick Pattern #5143.

***FOR YOUR PROTECTION** SINGER sells and services its Sewing Machines, Vacuum Cleaners, and other products only through SINGER SEWING CENTERS, identified by the Red "S" Trade-mark and the "SINGER SEWING CENTER" emblem on the window, and never through department stores or other outlets.

At right is SINGER SEWING CENTER at 823 Locust St., St. Louis, Missouri. For address nearest you, see classified phone directory. Or write SINGER SEWING MACHINE COMPANY, Dept. S-13, 95 Liberty St., New York 6, N. Y.

SINGER SEWING CENTERS

THERE'S ONE NEAR YOU TO SERVE YOU

†Prices subject to change without notice

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New roles for clothes hampers

By Florence J. Johnson

Clothes hampers usually lead a rather limited existence. They've been used for years to store soiled clothing in the bathroom. What a shame that their spacious interiors and attractive appearances have not been put to use in other ways before.

Below are five bright ideas for using hampers that will save you much time, energy, and work. You'll soon think of many more ways to use them, too, for they are an inexpensive answer to many odd cleanup and storage jobs.

Line an attractive hamper with a large burlap sack, fastened at the top with thumbtacks. Use it in the kitchen as the receptacle for paper towels, paper scraps, wastebasket contents. It eliminates the daily burning of wastepaper, and saves many minutes as well

Try a hamper in your linen closet, too. It should be a low one that fits under the bottom shelf of the closet. In it, put the unironed pieces of laundry that you don't finish on schedule. It will take the clutter out of a linen closet, save you time when you do want to iron

Ever wish your clothes were already sorted when laundry day rolls around? By having two hampers in your bathroom, it can be done. In one, put the dark things; in the other, white things. The time saved every washday is well worth cost of two hampers

Two hampers in the kitchen? Yes, when the second one becomes that long-needed haven for empty cans and bottles. Rinse the cans well before throwing them away, in order to avoid bad odors. Line the hamper with a burlap bag which can be laundered

The question of storing sewing scraps and unused lengths of fabric is easily solved when a clothes hamper is bought for your sewing corner. It's a good spot to store worn sheets, towels, blankets, and items to be mended, such as overalls, shirts, socks. **END**

Now! A lotion that glamorizes your WHOLE HAND!

1 SATINIZES PALMS. Even rough palms are soothed and smoothed. New Hinds' "skin-affinity" ingredients actually help to soften calluses.

2 SOFTENS CUTICLE. Nails look neater with New Hinds helping to keep cuticle pliable. No ragged edges to "catch." Your manicures stay lovely longer!

3 BEAUTIFIES SKIN. New Hinds is enriched with lanolin to make your hands feel softer instantly—protect them longer. Works wonders on rough, dry skin!

4 SMOOTHS KNUCKLES. Dry knuckles yield to the smoothing action of New Hinds. Effective emollients "sink in." Hinds dries fast—never feels sticky!

WORKS WONDERS! Lanolin-enriched for *extra* effectiveness, New Hinds Honey and Almond Fragrance Cream keeps your *whole hand* feeling soft in spite of ravages of work and water. Use it to smooth elbows, arms and legs... try it as a powder base. Use Hinds to help protect babies' and children's tender skin from chapping! 4 sizes, 10¢ to $1.00.

Hinds Honey and Almond Fragrance Cream

PRODUCT OF LEHN & FINK

NOW IN NEW LARGER BEAUTY BOTTLE

You on the lighter side

[*From page 48*]

Too busy to reduce? Days that are jam-packed with household tasks don't leave much time for special rolling, bumping, or bending exercises. But if you are smart, you'll put your housekeeping to work. For, figuratively speaking, there's nothing better. Bedmaking, dusting, sweeping, straightening, and picking up can pay real dividends as beneficial exercises. They're easy to do and, happily, fit right into your regular daily schedule.

For instance, instead of collapsing floorward when you retrieve the children's playthings, newspapers, or articles of clothing, try putting some figure tricks into your bending. Separate your feet, keep knees straight, and bend from your hips. Swing down toward your left foot with your right hand as you pick up the object, then reverse your hands for the next one.

Add a special flourish occasionally by lifting the object high overhead before putting it down where it belongs. These upward stretches are wonderful for the waistline. Bends, properly done in the line of duty, have excellent results as well.

Here's an extracurricular exercise that's a wonder-worker, too. When you have finished with the mop or carpet sweeper, unscrew the handle. Grip it with your hands, spread body-width apart. Draw your middle in and, keeping both arms straight, raise the handle over your head and pause. Then, with the hips and legs unmoving, bend at the waist, first to the right, up, and then to the left, straighten up and pause again. Repeat this several times.

Try to make your legs touch along their entire length when you're standing still. This is a corrective trick that helps to straighten and strengthen your legs.

If you give your household tasks a chance, you'll find they can work to your own advantage. It's the little things in your daily living that add up to keep you slim, trim, and attractive.

For firm bust, arm

Window washing, picture hanging, dusting high shelves—reaching is stretching. Start with good posture and s-t-r-e-t-c-h! Work each arm and, in washing woodwork and windows, add a rotary motion. This gives an extra perk-up to round shoulders. **END**

Have you seen the New Maytag Automatic? Gets clothes really clean . . washes, rinses, spin-dries . . does it all *automatically!*

The biggest, toughest wash never worries a Maytag owner!

Maytag's famous Gyrafoam washing action thoroughly removes dirt from grimy work clothes, play clothes and towels.

Maytag's big roomy tub holds more clothes . . . water stays hotter . . . cleaner too, for soil is caught in the Sediment Trap and can't recirculate through the clothes.

Maytag's gleaming finish keeps bright and clean for years. And nothing can equal a Maytag for smooth, quiet, dependable performance.

Let your Maytag dealer show you why women everywhere insist: "My new washer *must* be a Maytag!" Why not see him today? He's listed in your phone book. A liberal trade-in and low monthly payments make your new Maytag easy to own.

The Maytag Company, Newton, Iowa

Maytag WASHERS • IRONERS RANGES • FREEZERS

Here's a range you'll have to see

by *Linda Marshall*
MAYTAG HOME SERVICE DIRECTOR

SIX NEW Maytag range models were introduced just last fall at a number of the State Fairs. I haven't seen so many thrilled and wide-eyed people in a long time!

I wasn't surprised at the enthusiasm, though . . . for this new Maytag Dutch Oven Gas Range is gleaming white and shiny chromium . . . absolutely beautiful! And its so easy to *keep* clean. The burners lift right out, and a quick whisk with a clean cloth makes them gleam.

The Maytag *Dual Performance* oven cooks two ways: the conventional way (as you've always cooked) and the miraculous Dutch Oven way which lets your food cook ON with the gas OFF . . . *automatically!*

The big, roomy oven is super-insulated with layer after layer of the *finest* insulating material. And this range is fully approved by the American Gas Association for LP bottled or city gas.

There are many other wonderful features you'll want to see for yourself. Your Maytag dealer will demonstrate this range for you . . . so be sure to see him today.

It's heavenly coffee, Mary...

...because it's made in a WEAR-EVER COFFEEMAKER

Every Wear-Ever coffee-maker incorporates the results of exhaustive research by a great American university to determine the exact coffee pot construction for making the best coffee every time. You'll find the right size and type Wear-Ever coffee-maker at your favorite department, hardware or house-furnishings store.

The coffee pots that went to college!

SEAL FLAVOR IN
with this shining Dutch Oven that takes low-cost cuts and makes them delicious as choicest cuts.
4½ qt., $6.95.

50th ANNIVERSARY SPECIAL!
Greatest advance in pressure cooker history! New easy action cover—New Cam-lock Handle—Lightness you'll love.
4 qt., was $12.95, Now $9.95.
7 qt., was $16.95, Now $14.95.

PERCOLATORS		DRIP POTS	
2-cup...	$2.25	2-cup....	$2.95
4-cup...	2.50	4-cup...	3.25
6-cup...	2.75	6-cup...	3.60
8-cup...	2.95	8-cup...	3.95
12-cup...	3.50	12-cup...	4.50
16-cup...	5.45		

All prices slightly higher in the West.

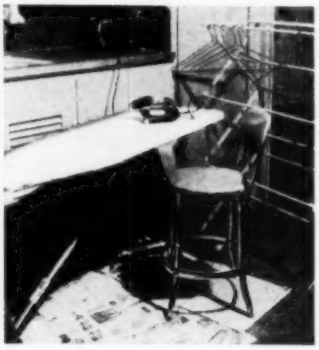
WEAR•EVER 50TH ANNIVERSARY 1900 1950

© 1950 TACUCO

THE ALUMINUM COOKING UTENSIL COMPANY, DEPT. 5703, NEW KENSINGTON, PA.

Five tips for easier ironing

1. Sprinkling with warm water means a speedier, smoother ironing. A plastic-lined basket and cover keep clothes moist. Fold garments lightly; rolling will add wrinkles



2. Put ironing board near a good light. Cover floor with paper; use a drying rack for hanging ironed garments. Have hangers for dresses. Select a chair with a back rest

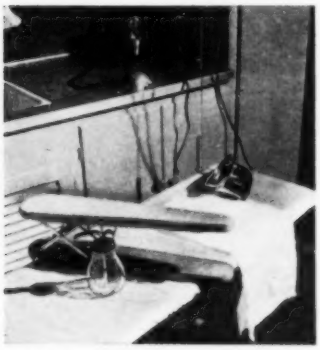
3. Sit down to iron. It is easier and faster and saves 25 to 35 percent of your ironing energy. Ironing height is right for you when your elbows rest lightly on ironing surface

Easier ironing starts on wash-day—planning beforehand trims many hours off your ironing time

By Joan Kelleher

Borrow a few tips from the experts and make your ironing job easier and speedier. The experts say the two things that tire you most when ironing are standing and lifting. You can eliminate these simply by sitting down to iron and by arranging your work conveniently.

Ironing boards that adjust to comfortable standing or sitting heights can be had now, and a sturdy kitchen stool with a back rest is an energy saver for any homemaker. Otherwise, all you need for the job is your present equipment, plus a few neat tricks for using it.



4. Get equipment made to speed ironing: A sprayer to dampen too-dry garments; cord holder to keep cord out of way; paper pressing cloth; sleeveboard for neater sleeves

5. Use a long, wide board for flatwork (24"x54"). It gives more ironing surface. Fasten four blocks to underside to hold it to your ironing board. Pad and cover. END

Now... Hotpoint "Pushbutton Cooking"

With Revolutionary New Instant-Heat Calrod Unit!

In Six Minutes Flat You Can Brew Six Cups Of Coffee —Using Cold Water!

SEE Hotpoint's exciting new ranges for 1950 which now combine the miracle of "Pushbutton Cooking" with the sensational speed of the new Instant-Heat Calrod® Unit!

● **Revolutionary in performance,** this amazing Calrod unit is the fastest cooking device of its kind ever developed for home use. Its pan-hugging construction puts the heat into your food instead of your kitchen—increases cooking efficiency.

● **Ask your Hotpoint dealer** to demonstrate "Pushbutton Cooking" and "Talking Colors" in the handsome double-oven range illustrated here. Also available are other outstanding 1950 Hotpoint ranges—at prices that make purchase easy! Hotpoint Inc.,* 5600 W. Taylor St., Chicago 44, Ill.

**A General Electric Affiliate.*

Everybody's Pointing To

Hotpoint

Quality Appliances

Guaranteed by Good Housekeeping

Look To Hotpoint For The Finest—FIRST!

"Tender, tasty, every time!"

Say housewives in
OMAHA, NEBRASKA
where every year an increasing number of women choose Star-Kist Tuna in preference to other brands!

because only the smaller tuna are packed under the Star-Kist Tuna labels

STAR-KIST TUNA is *naturally* tender, *naturally* tastier, because tenderness and tastiness are *natural* qualities of the smaller tuna. You can't buy finer tuna at any price!

"Recipes of the Stars"
FREE—favorite recipes of Stars Barbara Stanwyck, Fred MacMurray, Bing Crosby, Fibber McGee and Molly
Star-Kist Tuna, Terminal Island, Cal. Dept. 901

Buy either **FANCY SOLID PACK** *or* **CHUNK STYLE,**
Both are the same fine Star-Kist quality.

LINIT

gives the PERFECT finish AND **it's so EASY to make**

All your cotton fabrics "come out" beautifully when you launder them with LINIT® Starch, the superior starch that penetrates fabrics, keeps 'em fresh, dainty and new-looking . . . longer.

Just a minute! — and LINIT is ready to use. Mix with cold water, add boiling water—that's all! Your iron glides . . . over the smooth, even LINIT-starched surfaces . . . so easy!

yes!
PERFECT . . .
for shirts, dresses, blouses, children's clothes, curtains, sheets, tablecloths—all cottons.

LINIT
PERFECT LAUNDRY STARCH
MAKES COTTON LOOK AND FEEL LIKE LINEN

Timesaving sewing tips

Use these simple tricks of the trade to give home-sewn garments a professional look

Picking your pattern:

• Buy an easy-to-fit, easy-to-finish design with straight seams at the shoulders and sides. Try to find a becoming style with few pieces and simple detail.
• Study your pattern carefully, selecting the version you want to make. Circle it on the envelope and inside cutting chart. Let these be your blueprints for action.

Choosing your fabric:

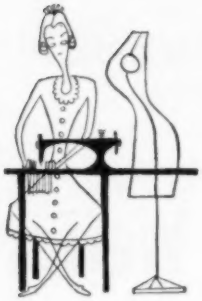
• Check your pattern envelope first for fabric suggestions. The manufacturer knows the materials best suited for each design and the smartest fashion-wise.
• Buy well-labeled goods. You'll want to know if it's shrinkproof, washable, colorfast, crease-resistant; if it's all-wool, cotton, nylon, and so on. Knowing your fabric leads to style success.
• The fabrics most easily handled are cottons and light woolens with good body, in solid color, or small allover prints. If you are a beginner, by-pass plaids, checks, border prints, or stripes that require tricky matching.
• Match your sewing materials to your fabric at the start—zipper, thread, binding, hooks and eyes—in color.

Pattern meets fabric:

• Press the fabric. Spread it on a surface large enough to hold all the pieces at once, and straighten carefully.
• Watch the grain of the goods in laying out your pattern pieces. Be certain that all pieces to be cut from a fabric with a nap are going in the same direction. Follow cutting chart to the letter.
• Work with plenty of pins (good quality—Size 4 or 5) and sharp scissors. Before cutting, mark every symbol with tailor's chalk or thread. A dress that's well marked almost puts itself together.
• Don't cut deep notches. It's easier to cut pattern notches out instead of in—particularly if the fabric frays.

Basting:

• When hand-basting, work on a table. Remove pins as you go, and add a backward stitch now and then for firmness.
• By loosening the tension of your sewing machine, you can whirl through a firm basting stitch in a hurry. This is a short cut many women prefer.
• Slip-baste plaids or stripes on the right side for easy matching.
• Insert a piece of paper in the seam of a bias edge—such as a neck piece—to keep it from stretching as you work.



By Shirley Medved

Stitching:

• To avoid puckering and marking your material, test the tension of your machine on a scrap before you begin stitching.

• Take a short cut to secure stitches at the beginning and end of each seam or dart by retracing several stitches on the machine. If your machine doesn't reverse stitch, lift presser foot slightly with one hand, and with the other, draw cloth slowly toward you. This fastens thread.

• Darts are firm if you *baste* them *from* the point to the widest part. *Stitch* from the widest part *to* the point.

• Press each seam open as you finish it. Then fitting and finishing will be easy.

• Stretch jersey a little for a neat job. However, always watch not to stretch bias fabric where it is joined to a straight piece. A puckered seam results.

• Before hemming a bias-cut skirt, pin it to a hanger and let it hang at least 24 hours. It will sag at the bias grain, and the inevitable uneven hemline can be adjusted accurately to save later changing.

Finishing touches:

• Try dress on, wrong side out, for an easy final fitting.

• Finish seams with care. Pink seams on materials that aren't easily frayed. Overcast or edge-stitch seams on raveling silk and wool. Turn a fine French seam for lingerie garments.

• Before turning a curved seam, slash along the edge to relieve bulkiness.

• A professional-looking hem is a "must." To be certain it's even, wear heels when marking. Allow about 2 inches for a neat finished hem.

• Make neat gathering easy by running three parallel rows of stitching about $\frac{1}{8}$ inch apart. Pull thread of each and adjust the fullness equally. Elastic thread wound on bobbin with regular thread is another answer to simple shirring.

• Use your ironing board for laying in pleats. Pin at top and bottom. Press in, then baste.

• Sew buttons on fine wool fabrics with a small stay button underneath to relieve any strain on the fabric.

• Final pressing turns the trick. Use a well-padded sleeveboard for short seams, a tailor's cushion for curved seams, particularly armholes. Regulate your iron carefully and use a pressing cloth or steam iron for your wools, acetate rayons, lined and faced garments. **END**

No more burning your fingers or probing into slots with a fork! With the new General Mills Automatic Toaster, even small-sized breads like raisin and rye, pop up within easy reach. An exclusive *double* thermostat times toast to perfection—makes it evenly browned every time. Choose this exquisitely styled new toaster for all important gift occasions.

General Mills Automatic Toaster

SPONSORED BY Betty Crocker

BIG COUPONS FOR

Queen Bess
PATTERN SILVERWARE
in Tudor Plate by
ONEIDA COMMUNITY
SILVERSMITHS

The same exquisite silverware offered with General Mills food products

Betty Crocker is a trade name of General Mills

NOW GIVEN WITH THE PURCHASE OF ALL GENERAL MILLS APPLIANCES

40 COUPONS with purchase of **TRU-HEAT IRON**

25 COUPONS with purchase of **STEAM IRONING ATTACHMENT**

75 COUPONS with purchase of **AUTOMATIC TOASTER**

NOTE: If the instruction booklet you get with appliance doesn't contain a coupon, send dated sales slip with store name, name of appliance, your name and address, within 30 days of purchase to General Mills, Inc., Box 800, Minneapolis, Minnesota.

LISTEN TO BETTY CROCKER MAGAZINE OF THE AIR, MONDAY—FRIDAY, ABC. 10:25—10:45 A.M. EST

Let's Talk Turkey

About This Threat To Your Welfare

Some time ago the anti-trust lawyers from Washington brought suit to put A&P out of business.

They asked the court to order us to break up our stores into seven groups and sell each group to new owners; to sell our factories to still other new owners; to disband the Atlantic Commission Company; and to close all our central buying offices, including the National Meat Department, the National Dairy Department and the National Egg and Poultry Department.

Since that time, hundreds of thousands of farmers, as individuals and through their organizations, have been adopting resolutions, writing letters and running ads expressing their opposition to this suit.

The Farm Bureau Federation, at its recent annual convention in Chicago, adopted a resolution that did not specifically refer to the A&P suit, but condemned current interpretations of the anti-trust laws. The resolution said in part:

"Regulations should not be used to eliminate the possibility of integrated systems that are efficient and competitive. Such systems have the possibility of bringing about a badly-needed reduction in the margins that now exist between the producers and consumers of many items."

The reason farmers are taking a stand against this suit is because they recognize that it is a threat to their welfare; a threat to all agriculture; and a threat to our national economy.

Have you figured out how much this suit could hurt you?

A Threat To Better Distribution of Your Products

A&P is the largest and most efficient distributor of farm products.

Obviously, this attack is a threat to the welfare of all the farmers who sell to A&P, for they will have to seek new outlets for their products.

That will mean greater sales effort and higher sales costs for them.

But it will have an adverse effect on millions of farm families who don't sell to us at all.

For the great amounts of food we move into consumption, the great merchandising effort we put behind food sales, tend to strengthen farm markets and boost the income of all farm families.

Everyone wants the farmer to get good prices for his products. After all, we can't have a prosperous country unless we have a prosperous agriculture.

The price you receive for your product is the retail price, less the cost of distribution.

To maintain good prices to farmers, therefore, we must eliminate unnecessary in-between handling costs and operations.

A&P was founded and has operated for 90 years on the theory that the best way to attract and hold customers and build bigger markets for farm products is to give the public more good food for their money.

In order to do that, and at the same time do a good job for agriculture, we have had to work constantly to find better and less expensive methods of distributing food.

As a result, we have narrowed the spread between farm and retail prices.

The methods we pioneered have been adopted by other food distributors.

All agriculture has profited from them.

Today farmers get a larger share of the consumer's dollar. Their sales are higher. Their income is greater.

This suit threatens to wipe out many of these gains.

Don't you think agriculture will be hurt by this attack on its most efficient marketing outlet?

A Threat to Your Living Standards

The farmer is a consumer as well as a producer.

His "real" income is determined by how much he has to pay for all the things he buys.

This applies to food, as well as clothing and other necessities. For today, with the development of cash crop farming, practically no farm family produces all the food it needs.

A&P was the first of the nation's chain stores. Together with the other chains and mail order houses, it has worked to keep living costs down and living standards up.

The public has shown that they like our method of distribution by giving us and other efficient distributors their patronage. We are big because the public made us big.

If the anti-trust lawyers win this suit, a legal precedent will be established that can be used to attack anybody who tries to do a better job, give his customers a better deal, and grows big in the process.

Don't you think your living costs will go up if the company that has done most to keep them down is destroyed?

A Threat To Our National Economy

That is why we say that the big issue here is not whether A&P engaged in some practices that allegedly violated the anti-trust laws. We know we didn't. We know that we have always tried to run a good, clean business. Even if there were something wrong with our methods of operation, it wouldn't be necessary to burn down the barn to get rid of the mouse.

The real question here is whether the anti-trust laws, which were designed to preserve competition, can be turned around to reduce competition.

The real question is whether we are going to continue to encourage people to do a better and more efficient job; or whether we are going to let the lawyers in Washington blow the whistle on anybody who gets a little bigger than his competitor.

Frankly, we admit that nobody needs worry about the owners of A&P. They could make a great deal of money by breaking up this company and selling off the parts as the anti-trust lawyers wish.

But we think you and every other American should worry about the kind of economic policy the anti-trust lawyers are trying to impose on this country—not by way of Congress, as it should be, but by way of court decrees.

You may not sell to A&P or buy from A&P.

But this is your problem, too.

You don't have to believe us.

Think it over and talk it over with your friends and neighbors.

Decide for yourself.

Atlantic Commission Company

and

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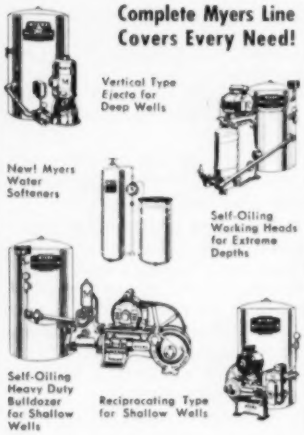
New! Myers "HN" series *Ejecto*
Greater capacities at higher pressures. Easily convertible for either shallow or deep wells. Many money-saving features include: positive air control; non-clogging nozzle; non-corrosive Ejectors; all threaded connections. More water per dollar — ask your Myers dealer for proof!

Complete Myers Line Covers Every Need!



Don't let pump failure "bottle-neck" *your* farm production! Depend on a Myers Water System to put that trouble behind you — and put you many dollars ahead. Comparison proves that Myers owners enjoy *more* years of care-free, repair-free service, at *lower* operating costs. It also proves your Myers dealer best equipped to meet your exact needs — with *Ejecto* and Reciprocating Types to match every well condition and volume requirement. See him soon. Mail coupon today.

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NAME_____
TOWN_____ STATE_____
COUNTY_____ R.F.D._____

Howard and his dad have one answer . . .

[*From page 35*]

younger sister, helped win a 4-H Club blue ribbon demonstrating furniture refinishing with another girl at the state fair last fall. She has completed her third year in the Home Grounds Beautification Project. Older sister, Joyce, now wife of a livestock buyer in Lamar, Colorado, was a Club member, too.

I'd say there's no question but what these are Club people. Yet Andy figures it this way: "I tell you, Curtis, it isn't all altruism (working for the welfare of others, the dictionary says), either. The 4-H Clubs are the best things that could happen to a livestock breeder like myself. You just start a kid with a good animal at a price $100 under what he would have to pay at a sale. That kid'll take that calf, raise it, maybe win with it —and advertise you and your farm and your breeding better than any way I know."

Of course, you've gathered from the above that Broadview Farms—Andy and Howard's acres—are centered on cattle (Milking Shorthorns) and hogs. The men take a practical view there, too: "We're located close to Oskaloosa so that dairying makes better sense for us than a beef-and-hogs operation. But we can raise our Shorthorn bull calves either as dairy breeding stock (as we do now) or as steers. We believe those Shorthorns pulled us through the farm depression years of 1932-37."

We can credit a small percentage of that statement of Andy's to the natural enthusiasm of a man who's found a breed to suit him. But it's a matter of record that the Barnes family were hard up through those years—along with about 5,999,999 of you other farmers. At that time, they lived in an old house on the north farm. That's where Howard and his wife will build this spring. Andrew was born on that farm, bought it (240 acres) from his father, almost lost it, then went on to the present 340 acres and to the purchase of the house (1945) in which they now live.

The "new" house was new to them only. But it was modern, right on Highway 92 which marks the south boundary of the 340, and the house was larger. Due to everlasting family hard work and to Mrs. Barnes' skill at refinishing antiques and at interior decoration in general, they came out with the attractive dining room-kitchen in which you see Howard and Jean on this month's cover—plus six other charming rooms and a gracious way of living in them.

Howard and Andy have formed a partnership arrangement whereby Howard owns one-third of the stock (for which his Club work is given much credit); both men throw in their labor; Andy owns the land and equipment; and Howard and Jean get one-third the income. Andy will give Howard and Jean the new home they plan to build, but—and here's where parental good sense and real family partnership come in—only the house shell. Plumbing, heating, furnishings are up to them as far as cash payment goes, and they'll do most of the work themselves.

Meanwhile, Howard and Andy paper-plan and hard-work toward even better performance from the 65 Milking Shorthorns, some 60 brood sows and boars at Broadview. I think you'll be interested in their management of those animals:

First and foremost, their Shorthorn bloodlines pay off in the pail: Of the four class leaders developed at the farm over the past few years, Broadview Sybil, as a senior 2-year-old, gave 16,685 pounds milk and 577 pounds butterfat. Broadview Teresa, as a junior 3-year-old, delivered 12,489 pounds milk, 519 butterfat. And Broadview Mary Lou, on a senior 4-year-old record, chalked up 18,269 in milk and 689 pounds of butterfat. Those are hard to beat!

The Broadview dairy ration which helps with these fine records is made up of 40 pounds corn, 40 pounds oats, 12 pounds soybean meal, 7 pounds bran, 1 pound mineral—for a total of 100. Protein content is varied according to the quality of the alfalfa and bromegrass.

Naturally, one of the many Barnes family hobbies is trips with Broadview

Jean Barnes, who works in photo studios of John Sybenga in Oskaloosa, snaps picture of sister-in-law Rosemary for family album

dairy stock to shows and fairs. As Howard puts it, "At the shows, we're all out in the barns and at the ring stacking Broadview Farms products up against the competition."

But at each show location, the family sees to it that they make a circle tour in the big station wagon to points of historic interest, to any musical performances—and, of course, to those antique shops in which the family shares an interest with Mrs. Andy. So whenever another blue or purple dairy-show ribbon goes up on the office walls, there's pretty apt to be a following family session of prayer and paint remover centered on the latest antique discovery.

Often Broadview's demands interrupt such family holidays. Consider this fall at state fair time: On the day Andy and son were readying the truck and the show gear, the fall pig crop showed promise of arriving. So Andy went on up to Des Moines, leaving Howard and their helper, Eldon Wiley, to handle the pig situation. And it *was* a situation—over 200 fall pigs in two days and a night!

Andrew H. had taught Howard his pig-production motto early: "Keep a truckload going for sale every so often—that's about the only way to average out the market." So they plan to farrow at

[*Turn to page 86*

The Styleline De Luxe 4-Door Sedan.

So good looking . . . so rugged, smooth and powerful . . . so truly the one car for you, your family and farm

You expect the best from Chevrolet and here it is—the magnificent new Chevrolet for '50!

Here is America's finest low-cost car made still finer in every way. In Chevrolet for '50, with the new Powerglide automatic transmission, you get beauty and economy . . . driving and riding ease . . . comfort and safety unapproached in the low-price field.

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The thrilling new Chevrolet for '50 brings you all the big-car features that have made Chevrolet rural America's first choice through the years. It brings them to you at their very finest . . . at the very lowest cost!

So visit your Chevrolet dealer today. See the best-looking, most spirited and powerful cars in Chevrolet history . . . the cars that are again FIRST AND FINEST AT LOWEST COST—the splendid new Chevrolets for 1950!

CHEVROLET MOTOR DIVISION, *General Motors Corporation*, DETROIT 2, MICHIGAN

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New 105-h.p. valve-in-head engine with Powerglide automatic transmission is the most powerful engine in its entire price-class. With the stepped-up standard engine, too, you get a power plant that's outstandingly durable and dependable—and a real money-saver to boot!

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Your whole family rides in uncrowded comfort in Chevrolet's roomy interior. Those wide "five-foot" seats and luxurious new two-tone interiors add an extra treat to Sunday drives. And you'll really appreciate Chevrolet's giant-size trunk on those buying trips to town!

Combination of Powerglide transmission and 105-h.p. engine optional on De Luxe models at extra cost.

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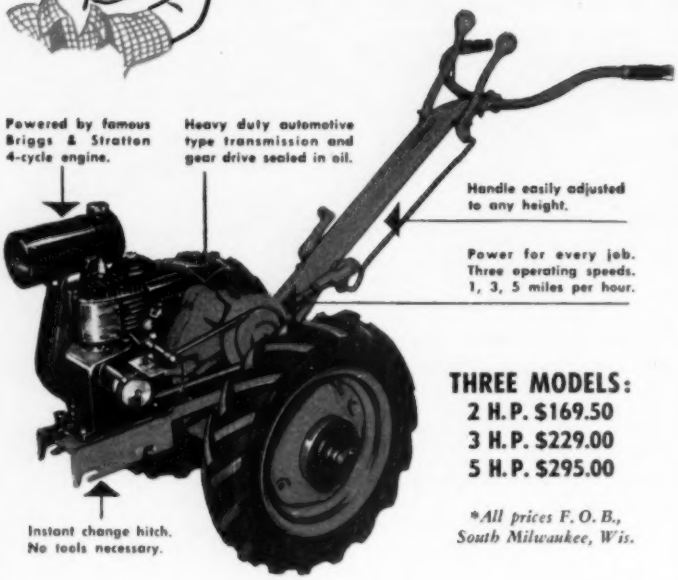

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THE MIDLAND COMPANY • South Milwaukee, Wisconsin

Howard and his dad have one answer . . .

[*From page 84*]

Broadview from March 1 to April 1 for the first batch of crossbred pigs, which will market around September 1. Then another bunch of sows will farrow around June 1, and the pigs get off around December 1. The fall farrow comes in the neighborhood of first of September, with marketing around the first of March.

Broadview provides all of the Barneses' grain for hogs and cattle and chickens combined. The Barneses buy only protein feeds. The general crop rotation is oats seeded to sweet clover for a year, two years straight corn, and then back into a year of oats and sweet clover. (See the article, "Look What Sweet Clover Will Do," on page 42 of this issue.) On the hay and pasture fields they raise a large amount of alfalfa and bromegrass as a mix, and grow some red clover.

The long-time plan for the place is to have Howard and Jean take over the crops and hogs as rapidly as they can buy in, which will give Andy more time with his breeding herd and give Mrs. Barnes more time with her refurnishings projects for herself and friends. More time, too, for those county-famous dinners she serves prospective cattle buyers, visitors, and visiting editors. That's the plan for the future.

At present, Jean and Howard are busy with blueprint sets (one of them from *Successful Farming*) on the new home. Red-haired, lively Rosemary has just finished a season as drum majorette with the Oskaloosa High School Band and hopes for a future with the famous Highlanders (precision marchers) at the state university. The lights burn bright and long in the white, Colonial house on the highway while family hobbyists work together. And it's been a very satisfactory "time out" from the heavy grind of seasonal field work which begins again for the Barneses the last of this month.

In this article, we've treated that field and feedlot work in some detail for two reasons: (1) It outlines the answer which we mentioned in the headline at the beginning of the article. (2) It underlines a fact you and I both know: that a lot of skillful planning and sweat go into the background of a life like that at Broadview Farms.

Breed association offices, 4-H Club offices, schools (Andrew was a director of the local rural school for years), the D.A.R., the King's Daughters, home project work, church interests, a directorship of the Southern Iowa Fair have all come into the Barnes family circle, and have been fitted into a schedule that counts seconds and minutes as valuable as hours and days. Good housing, good food, good cars, good music, and good times have all come, too.

But they aren't good and they don't come just because some writer such as I would like to report them so. They're begun out there in the fields behind the white house where a father and son have used their heads as well as their backs on 5-cent margins and 16-hour days.

For farming can be, as I have hinted in the beginning, a noble and profitable profession. But it takes answers like that of the Barneses to make it come out on the successful side of the ledger. **END**

4-H Club Congress

[*From page 16*]

both in school and Club work? Have you, with keen interest, joined educational programs your Club offers, such as health, safety, wildlife, and conservation projects?

If you honestly can answer "yes" to these questions, the chances are that one day a car will drive up in front of your home and out will pop a smiling county agent with a contest form for you.

As you sit down to fill it out, remember that those pages will tell your story. Make them interesting. Sell yourself as a loyal 4-H'er, especially in the achievement story you must write in your own words. Stick to facts, surely, but show how those facts have led to better living for you, your family, and community.

If your record is entered in a specific program, tell the story of your achievements in that project.

The judging of report blanks is entirely out of your hands, but you may be sure that it is done fairly and squarely. Maybe you won't win this year, but that should make you try harder next year. And even if you never win, don't think for a second that you're a loser. You're a winner in every sense if you go out wholeheartedly for 4-H work.

If you do win that trip to Chicago, remember it's a trip to every 4-H'er's dreamland. Why not come back, then, and help make other Club members' dreams come true? **END**

. . . the next few months are important!

If you are dissatisfied with your job and want to get ahead during the next few important months of 1950, here's your chance in a service-sales job with *Successful Farming*. It's a job that offers far-above-average earnings. It's a job that will give you the satisfaction of providing a service to the farmer and the community.

To learn more about this job and the opportunities it offers, write to our closest Branch Office listed below. Give us a brief summary of your past history (farm background preferred but not necessary), the make and year of the car you own. If you qualify, a personal interview will be arranged.

Training is complete and at our expense. Openings are available now!

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MICHIGAN
Art Schultz
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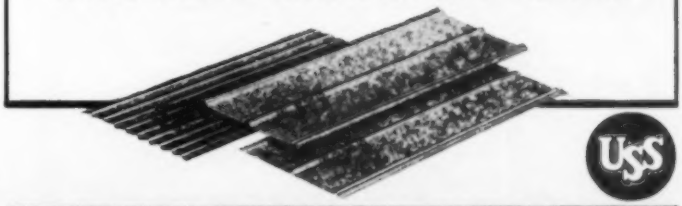

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Engineered to give real protection against storm and wind . . . with patented, *Ruberoid-originated* features that give the utmost in weather protection.

When a devastating storm swept down through Minnesota and Wisconsin last October 10th the newspapers reported property damage running to hundreds of thousands of dollars in the farm areas affected. During the following three days, Ruberoid conducted a survey involving scores of Tite-On Roofs in the windswept farm sections. Our findings: *Again* Tite-On roofs came through unscathed and unruffled.

But let a farmer* tell you about it . . . he was watching his Tite-On Roof when the wind was blowing hardest. Here is his letter: "Just thought you might be interested to know that my new Tite-On roof you fellows put on my dairy barn last Summer really stood the test in a recent windstorm which travelled about 87 miles per hour. One of my other buildings was completely destroyed by the wind. Some of my neighbors' roofs are badly damaged as a result of this windstorm—they didn't have Tite-Ons."

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Farmers will feel blow

[*From page 33*]

But foreign needs are changing fast. Requirements are not as great as in previous years because the last two harvests overseas have been fairly good, especially in western Europe where we have concentrated our help. Livestock numbers are increasing because last year's feed-grain production in Europe was about equal to the good crop of 1948. Bread grains—wheat and rye—were only slightly under the year before. Of course, the countries abroad could *use* more of our grain and agricultural products, but what they can *buy* is limited by their critical shortage of dollars.

This dollar shortage is growing worse. Foreign countries have not been able to increase their exports to dollar areas in the amounts they had planned. Actually, their dollar earnings have been going down. The recent, world-wide devaluation of currencies in relation to the dollar was made in an effort to increase exports to dollar areas. But this is not working out as well as expected because rising costs in various devalued-currency areas tend to boost prices.

At the same time, the amount of money this country is offering for aid to foreign countries is being cut back by the Congress. Appropriations of 5.8 billion dollars for E.R.P., and other foreign assistance for the fiscal year which ends June 30, 1950, represent a cut of 17 percent from the amount of money made available for the previous year. A much greater cut is to be made for next year.

All this will have a poor effect on our exports unless the foreign countries are able to earn more dollars. Indications are that for 1950 the total value of our overseas shipments of farm products may decline 10 percent or more from 1949—and may drop off more sharply during the following two years as we slash still further our appropriations for foreign aid.

Farm exports, of course, stack up quite small in relation to our present level of national income. But the contribution they make to total *farm* income is of greater importance to farmers and businessmen alike. And for a number of specialized farming areas—especially those producing cotton, tobacco, wheat, rice, apples, citrus and dried fruits—exports always have been and will continue to be of major importance.

The value of our farm exports averaged around 3½ billion dollars during each of the last two years, a drop of about 13 percent from 1947. These exports were equal to around 10 percent of our national gross farm income, only slightly above the 8.4 percent of the depressed 1930's and substantially lower than the 17.5 percent of the 1921-25 period.

The very fact that our present ability to produce is far beyond anything the world has ever seen, more than ever forces us to change our ideas about foreign trade in our economy. We can no longer shrug at exports. The upward swing in our production will move higher for some time to come, and at a rate somewhat greater than the increase in our population. Even with the wisest use of our resources and with full employment of our people at good wages, it is certain that we will be turning out more things than we can use in this country.

If we are to make full use of our ability to produce, our foreign trade will have to be continuous and substantial. Obviously, as the different countries rebuild their own agricultural and industrial plants, they will not need to draw so heavily on us. But if we are willing to buy more goods and services from them, they in turn will be able to buy from us more of the goods they previously could not afford.

Even if the European countries we are now helping do in every way reach the kind of economic recovery that we hoped for, the fact is that much of the world would still be at a standstill. This would be true especially in the so-called "underdeveloped" countries.

And let's not forget that more than half the people of the world live in such countries now. These people have such low purchasing power that trade with them is very limited. They have little or nothing to sell; consequently, they can buy very little.

It is obvious that all the world would profit if these backward areas could improve their financial setups and share in the flow of goods among nations. What this could mean to the world is shown by our own situation, in which countries making up only 11 percent of the globe's population are providing more than 50 percent of our markets.

Thus the underdeveloped countries of the world offer the possibilities of a vast, new frontier. But even with this in mind, there is the risk of winding up with the same sort of weak "solution" to the problem of international trade as we now face under the E.R.P.

To avoid that, we must know where we want to go and how to get there. The idea of tackling the job of economic development in backward areas was first outlined by President Truman as Point Four in his inaugural address of January, 1949. Many nations have since pledged their aid to make it work.

Essentially, the Point Four Program recognizes that there is a limit to the dollars and materials the United States can keep pumping out as gifts for the aid of others. Instead, the program aims at providing the underdeveloped countries with the *basis* for self-help and at encouraging individual initiative and private investment.

These areas would be supplied by us with know-how, technical knowledge, and other related aids needed to develop their own agriculture and industry and to improve their standards of living.

But these backward areas would also need to receive supplies and equipment as well as raw materials. They would need investment capital. Gifts from outside sources might *start* them on the right track, but soon these countries would have to pay their own way.

Many of the underdeveloped countries are rich in resources. A wise plan for their development would enable them to improve their own living conditions, relying on selling abroad the goods they can produce best to yield the buying power they need. Thus all the countries of the world would benefit.

In this country, foreign trade is everybody's business, and yet it is nobody's business. We have many government agencies concerned with foreign trade, but each deals with this problem from its

[*Turn to page 90*

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Phillips *66* Premium Motor Oil is designed to prevent sludge and varnish. This high quality motor oil *does more* than lubricate your engine. It offers the protection of valuable chemical additives to keep your engine *clean!* In other words, you get "Lubri-tection"! You can get Phillips *66* Premium Motor Oil from your Phillips *66* Dealer or Tank Truck Salesman.

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Here's the way to make a new room pay for itself: *stop costly heat loss through your uninsulated attic!* Your lumber dealer will show you how Balsam-Wool Sealed Insulation will save enough in fuel bills to pay for itself and your new room, too! Remember, Balsam-Wool is sold under a money-back guarantee!

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Nu-Wood quickly remodels old rooms or builds extra rooms in your home! It comes in large sheets, tile or plank . . . pre-decorated with soft, *fade-proof* colors. Balsam-Wool Sealed Insulation will provide comfort and lasting fuel savings year after year. Use those savings to make your remodeling dreams come true!

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Name.....
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City.....State.....

Farmers will feel blow

[*From page 89*]

own agency viewpoint. True, the State Department is concerned with questions of over-all foreign trade policy, but this function is primarily related, in practice at least, to its diplomatic work.

Obviously, foreign trade is not something to be dictated by government. This should be a job in which representatives of all interests of our economy are given an opportunity to work together.

As a suggestion, Congress could set up a commission to study and analyze our foreign trade situation and to develop the kind of blueprint and the detailed information so urgently needed for decision-making purposes. The work of such a commission would include everything from study and analysis of our almost countless foreign trade laws to close examination and appraisal of foreign investment opportunities. It would work out the details of what items and the amounts that should make up our foreign trade.

Through such an approach, the commission should be able to say in specific terms what our foreign trade objectives should be and what must be done to get the job done.

The composition of such a commission could be as follows: Agriculture, labor, industry, and finance to have two representatives each, the individuals to be appointed from private life by the President with each group being afforded bipartisan representation. The President of the Senate and the Speaker of the House each would appoint two members from their respective legislative bodies on a bipartisan basis. The Secretary of State, the Secretary of the Treasury, the Secretary of Agriculture, the Secretary of Commerce, and the Attorney General would be included as regular members.

The commission should elect its own chairman and be empowered to have its own staff as well as use the services and facilities of any government agency.

The drafting of legislation setting up such a trade commission would be a simple matter. Its enactment would not set any new precedent, as the idea follows the same general pattern set by the Hoover Commission which so successfully centered attention on the complex problem of government organization.

No matter how the job is done, the plain fact is that we have not yet probed into the core of the critical international trade problem which is shaping up for us and for the rest of the world. For our part, we have lulled ourselves to sleep with generalities and with reliance on a continuing, heavy flow of gift dollars for overseas aid.

The answer, of course, is not simple. However, we are in a key position because we have both the capacity to consume more goods and services supplied by others and the ability to produce the products, services, and capital that may be needed by others.

Meshing these together to form a pattern of production and trade which will return maximum benefits to ourselves and those abroad is a challenge we must face. If we do not take positive action NOW to focus attention on this problem, we stand to lose much, for ourselves and also for the rest of the world. **END**

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"B"—offers full 2-plow power, choice of gasoline or all-fuel engine. Shown with 2-row Quick-Tatch cultivator.

"A"—2-3-plow power. Choice of all-fuel or gasoline engine.

"G"—Full 3-plow power. All-fuel engine.

"MT"—Offers 2-row capacity with light tractor economy. Shown with Planter-Fertilizer.

"M"—1-2-plow power for small farms—ideal helper on large farms.

In the many enthusiastic letters received from John Deere General-Purpose Tractor owners it is not uncommon to read this statement, *"My John Deere tractor and I are partners."* Perhaps no greater tribute can be paid to the dependability, the year in and year out profit-producing ability of these tractors and their full line of matched working equipment.

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two-cylinder tractors

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They'll stay in the calf business

By Arthur Edwards

Farmers today are wondering about the long-time cattle outlook. Economists don't have all the answers, but it's a fairly sure thing we can't expect the wide margins of profit enjoyed the past several years.

This points to one big thing—producing good calves cheaply. Glancing at the operations of some top calf producers, it's easy to see why they will hold their cow herds. They do the things which make beef calves pay dividends. True, it takes some good management, but little gambling.

Using a good bull is probably the biggest consideration. Baxter Hall of Shelby County, Missouri, considers his herd sire half the herd. When mated to grade cows, the bull will pass on his beefy and thrifty points to the calf crop.

A paying bull doesn't have to cost a lot of money. But Hall likes to buy one eligible for registry, because the sire is more apt to breed true and pass on his good points.

Just being a registered animal, however, doesn't insure blocky, quick-growing, and generally thrifty calves. Hall believes a bull needs to be low-set, thick-quartered, and have a good head. (See top picture.) Then you can almost count on him to produce calves which will go ahead and do a good job in the feedlot.

This is one reason many farmers hate to retire an old herd sire who has done a good job for them. Sometimes it costs money to prove a young bull, as it may mean a poor calf crop.

Farmers who really cash in on the services of a good bull breed their cows for early calves. To get top profits, calves have to weigh 500 pounds or more per head at weaning time. That's about 100 pounds above the average for calves raised here in the Heart states. And it means putting an average of at least 1.85 pounds per day on them from the time they are dropped.

This sounds like a great deal of weight for weanlings, but numerous farmers are doing it every year. They say it's easy if you have well-bred, early calves and provide them plenty of pasture.

Records of Tom Ream, Pettis County, Missouri, show what early calves will do. Last year he raised 36 calves from his 36-cow Angus herd (see bottom picture). He always earmarks calves and then weighs

[*Turn to page 94*

Good-type bulls like Baxter Hall's are low-set, thick-quartered, have good heads

Poor-type bulls cost money to keep. Lack depth, thickness. Result: poor calves

Good fleshing can be seen on Tom Ream's cattle. They are on fall pasture, which is first-year sweet clover. During the summer, they graze on lespedeza pasture

THIS pole is just one of the more than 1,500,000 the Bell System has put in along rural highways during the last four years.

• Poles, of course, are only a part of the big job of providing more and better telephone service in our rural areas. It takes a lot of everything—men, materials, tools and equipment, and money. But most of all it takes a lot of knowing how.

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• Here in the United States a larger proportion of farmers have telephones than in any other country in the world. We're working to increase that lead every day. And every day we make good use of our telephone experience—74 years of it.

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The New Idea Cylinder-Pushbar Loader picks up clean, saves valuable leaves and short pieces. No threshing, no jamming. Heavy-duty durability.

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The New Idea All-Purpose Elevator handles baled hay —also ear corn, small grain, filled sacks, crates, etc. — quickly, easily, economically.

Whatever *your* field conditions—hilly, level, rocky, gullied—the NEW IDEA Side Rake takes them all in steady stride. Rigid steel-girder frame holds it permanently in line at any tractor speed. Flexible 4-bar spiral reel yields quickly to any obstruction. Here's the solid strength of NEW IDEA quality construction. Here's the added advantage of a dependable tedder—always ready when needed. Here's smoother, faster raking season after season.

And positive pick-up too! NEW IDEA double-curved teeth make a clean sweep of every crop. They're tough, resilient, quickly and easily detachable. No other tooth design can match their gentle, thorough windrowing and tedding. No other rake can give you this plus-performance feature!

There are many more facts about NEW IDEA Haying Machines that mean money to **you**—how they can safeguard feeding value, save you hours of hard labor, boost your profits. Get them first-hand from your friendly NEW IDEA dealer. Mail coupon for free literature.

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Name_____

Address_____

They'll stay in the calf business

[*From page 92*]

them separately. Weighed at an average age of 222 days, they tipped the scales at an average of 478 pounds per head.

"I got caught with a few too many late calves," Ream said. But they gained an average of 1.8 pounds per day, estimating that the calves weighed 80 at birth.

The big thing is this: Ream's January calves averaged 537.5 pounds, the heaviest weighing 590 pounds. February calves were about 10 pounds lighter.

But let's look at those dropped in March. They averaged 85 pounds lighter than the January calves, weighing 451.8 pounds. April calves weighed only 395 pounds, a total of 142 pounds lighter than his earliest calves. A calf or two dropped in May weighed only 328 pounds when put into the feedlot with the rest, 209 pounds less than the big January group of calves.

The pound difference sounds big, but consider the price angle. At 25 cents per pound—and good calves sold well above this—100 pounds means $25 per calf. But a 209-pound difference adds up to $52.25 more income per cow.

Figure this up for a whole herd. With the only income from a cow being the calf she weans, those extra pounds from early calves may mean the black ink side of the ledger. And early calves become even more important as price margins narrow down.

Ream is shooting for more early calves. He is also selecting replacement heifers on a combination of weight for age, type, and conformation. He wants heifers which will make good growth and fast gains.

Keeping records doesn't take too much time, he says, especially when considering the dividends. Records pointed the way to selling 9 aged cows and 5 heifers which he'd planned to keep. They just weren't capable of doing the job he could expect from some of his better-doing cows and heifers.

Baxter Hall handles his 67 grade Hereford cows in two groups. His calves consistently beat the 500-pound mark at weaning time. While he gets a 100-percent calf crop almost every year, he says it is hard to avoid a few late calves, important as it is to have them come early.

At 194 days of age, his 39 early calves weighed 515 pounds each. This allowed the entire 67 calves to average just over the 500-pound mark at weaning time. His daily rate of gain made on milk and good grass figured 1.88 pounds per day per calf. The entire group included 4 summer calves, which tended to pull down the average.

Early calves pay more than weaning weights would indicate, Hall believes. Cows producing early calves are easier to get settled. They are usually bred just as grass is greening up. And they have a chance to build up before having to contend with hot weather. This flushing period can be done on spring grass, which rules out grain feed costs.

Then, too, Hall says the later calves never catch up with the early ones. January or February calves, which go into the feedlot 100 pounds heavier, usually hold that margin. Records show they will eat about the same amount.

When it comes to creep feeding, these men agree that milk and grass fat are much cheaper. And they have found that calves won't eat at the creep anyway, if cows give plenty of milk and there is lots of good grass. John Weaver of Mercer County, Missouri, used a creep in late summer this past season but says it's seldom necessary.

The method of marketing calves is pretty much of an individual one. Some beef cow men sell their weanling calves as feeders. Others prefer to feed them out. This depends largely on the feed supply.

John Weaver produces calves solely as feeders. He sells his calf crop off the cow each fall, wintering only his cows and replacement heifers. Weaver has abundant pasture but raises little grain to carry steers in the feedlot. So, as he says, his business ends with producing a good feeder for Cornbelt buyers.

He has found they pay fancy prices for quality calves. With little or no cash outlay except taxes on his land, Weaver's place in the beef cow and calf business is a stable one.

On the other hand, Tom Ream and Baxter Hall many times feed out their own cattle, as does Sterling Shaw of Caldwell County, Missouri. Shaw views the situation in this way: Raising good-quality feeders gives you a three-way chance of marketing.

Normally, Shaw keeps calves at least until they are long yearlings. If he thinks the market is right for holding feeders and his feed supply is normal, the calves are roughed through the first winter with very little grain and then are put on good pasture in the spring. After a cheap summer gain from lespedeza pasture, he gives the calves a short grain feed of 30 days or more, and then markets them. Or he withholds the grain, roughs them a second winter, pastures them another summer, and then puts the short grain feed to them and sells them as 2-year-olds.

Ream and Hall do the same. Ream, for example, said his '47 calf crop did an unusually good job. He started them on a light feed in the fall. Heifers were taken off in the spring and the steers pastured and fed till August 1. They went to market weighing 875 pounds per head and sold for $37.25 per hundredweight. This was at about 17 months of age. Besides pasture, the steers ate an average of 28 bushels of corn and 1 pound of mineral per head.

It takes good grade cows to produce calves which will make these records. One of the most practical methods of building such a herd is to select heifers from grade cows bred to purebred bulls of superior type. John Weaver has complete records on performance and feed which date back nine years. In the business for 18 years, he has never brought in an outside cow.

Weaver buys purebred Angus herd bulls as needed and selects replacement heifers from his own herd. Right now he has 17 of these heifers which are dropping calves.

Baxter Hall bought a good herd of grades several years ago off a Texas ranch. Mated to a purebred Hereford bull, they have consistently produced top market calves. Asked if they had paid for themselves, Hall grinned and said, "Several times over. These cows actually are my production line."

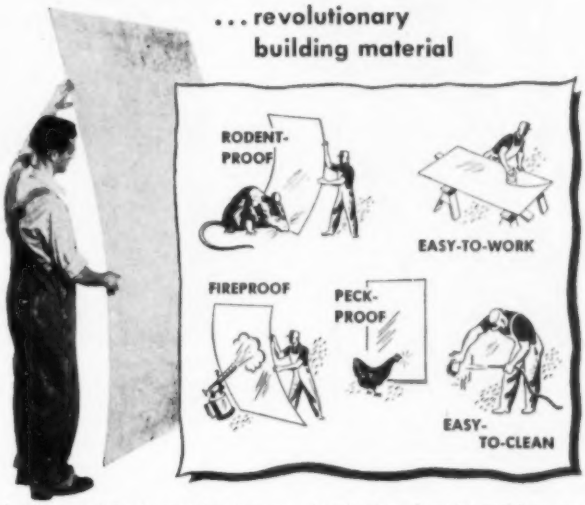
[*Turn to page 142*

This Free Book

tells how you can build and remodel inexpensively with

Asbestos Flexboard

. . . revolutionary building material



This illustrated book contains dozens of practical ideas showing how Asbestos Flexboard can help you cut building-and-maintenance costs on the farm.

For example, it shows that because Flexboard is made of asbestos and cement, it is widely used to protect feed and grain bins from rats.

It shows how the smooth hard surface makes a sanitary, easy-to-clean interior that meets the strictest requirements for milk houses and dairy barns.

The book also demonstrates how Flexboard solves 2 major problems on the interior of poultry houses—the hens can't peck it and it's easy to disinfect. One entire section of this practical book shows how the large sheets of Asbestos Flexboard make it economical to remodel old farm buildings.

It illustrates what other farmers have done and shows how this modern material, which saws and nails like wood, reduces maintenance expense because it never needs paint to preserve it. Send today for a copy of this practical book.

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Up-to-date plans include latest recommendations of U. S. D. A. and State Agricultural Colleges. Drawings are 17 x 22 inches. Include exact specifications which you or your builder can easily follow. Cost only $1 per building. Use coupon to check plans you need, or to send for free brochure on J-M Asbestos Flexboard.

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● Put new life into your car, truck or tractor—with a quick, simple Casite Treatment.

Casite through the carburetor air-intake frees sticky valves and rings, lets the power zoom through.

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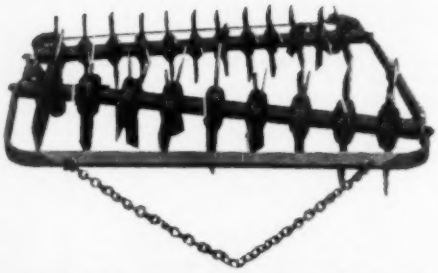
75¢ A PINT

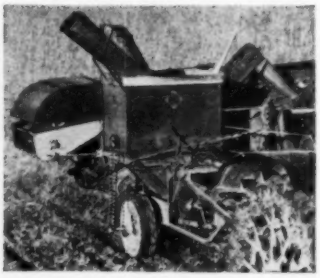
Down machinery row in 1950

[*From page 49*]



Clod buster is designed to be hooked behind the plow and fit soil at the same time it is being plowed. Valley Manufacturing Co., Valley, Nebraska, says the tool will work well in any soil and crop condition, including brome sod, corn stubble, or wheat stubble, without clogging

Power scoop, built by the Energy Farm Equipment Co., Monticello, Iowa, features hydraulic control. Handles ¾ of a yard at a time, throws weight on rear tractor wheels



Straw cutter attaches to the combine. It chops residue from small grains or soybeans to aid plowing and to avoid smothering seeding. Valves and Presses, Delaware, Ohio

Automatic twine baler, announced by New Holland, has been simplified for more economical operation and upkeep. It has 20 percent fewer parts than older models and handles 10 tons an hour. For tightness, bales are tied under compression

Hay crusher is considered by some experts as most important haymaking machine. It crushes stems, thus allowing faster drying. Meyer Mfg. Co., Morton, Illinois, has built this one, power take-off driven, with or without its own attached mower blade

TO EVERY SPARK PLUG USER!

CAPT. EDDIE RICKENBACKER VOLUNTEERS THIS AMAZING STORY ABOUT CHAMPIONS!

President and General Manager of Eastern Air Lines Credits *SAME SET OF DEPENDABLE CHAMPIONS* with 240,000 Miles of Air Travel!

Actual photo of one of the Champions cited above and gold-plated by Capt. Rickenbacker as a souvenir.

"THIS SPARK PLUG is one of the set of thirty-six (36) which operated in the #4 engine #75737 in Eastern Air Lines' new type Lockheed Constellation #115A for 811 consecutive hours of trouble-free operation. This amount of operating time, which is most unusual, based on an average cruising speed of 300 MPH, is equal to approximately 243,000 miles, or almost ten times the distance around the world at the Equator, and during this period the spark plug fired approximately sixty million times. This type of service from a spark plug is remarkable even when compared to the type of operation as recent as a year ago. Also, to its credit can be added that during its life it was one of the spark plugs (none of which were changed) that helped carry myself and party on our Latin American Tour during August of 1949."

Eddie Rickenbacker

All Champion Spark Plugs, regardless of type or purpose, are products of the same unequalled research engineering and manufacturing facilities. As a result, the same qualities of outstanding performance and dependability, so dramatically demonstrated above, are inherent in every Champion, for every engine!

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CHAMPION SPARK PLUG COMPANY, TOLEDO 1, OHIO

Listen to the CHAMPION ROLL CALL . . . Harry Wismer's fast sportscast every Friday night, over the ABC network

Vicki: *I've been dying to tell you what I discovered about that you-know-every-month business. You just use Tampax and it makes all the difference in the world!*

Meg: Why Vicki, I've heard that too. The fact is I'm getting fed up with the old belt-pin-pad routine.

Vicki: *They say Tampax just won't let you be self-conscious at such times. You actually forget all about it.*

Meg: The way I look at it—if millions already use Tampax, why should we hang back?

Vicki: *Right you are, so here I go for a month's supply to put in my purse.*

Invented by a doctor for *internal absorption*, Tampax is made of pure surgical cotton contained in patented applicators. No belts, pins or external pads. No odor. No chafing. Invisible and *unfelt* when in place. Quick to change. Easy disposal. At drug and notion counters in 3 absorbencies: Regular, Super, Junior. Tampax Incorporated, Palmer, Mass.

Accepted for Advertising by the Journal of the American Medical Association

WE TAKE A PATTERN

this smart suit for spring

The comfortably slim skirt, the trim belted jacket, and new side-pocket interest make this a becoming "go-anywhere" suit

View 1. In trim navy gabardine, it is perfect for dressy, around-the-clock wear. Size 14 requires 3⅛ yards, 54-inch wool gabardine (without nap). About $6 a yard.

Total cost (lined) . . . . . *About $21*

View 2. The same pattern goes casual in a new checks-and-plain combination. Stitch the jacket of a soft wool check with skirt in matching solid color. The jacket requires 2⅛ yards; skirt, 1⅛ yards of 54-inch fabric. About $2.98 a yard.

Total cost (lined) . . . . . *About $12*

Butterick Pattern No. 5204 comes in sizes 12, 14, 16, 18, 20. Purchase it at your local pattern counter or, if unavailable, send 65 cents direct to the Butterick Company, 161 Sixth Avenue, New York 13, New York. Include your correct size and the pattern number

For every woman who leads a double life...

GOOD PARTNER YOU! Feeding hungry mouths, doing stacks of dishes, helping with the animals. Your busy hands are in and out—in and out—of hot, soapy water every day! But you don't want rough, red "chore" hands, for when your work is done, it's . . .

GOOD PAL YOU! You love to go to socials, dances, church affairs. You want your hands to look attractive—not dry and work-worn. That's why Trushay—the "beforehand" lotion—is just what you need. Read below how it guards your hands *while you work!*

TRUSHAY... *the "beforehand" lotion... guards your hands even in hot, soapy water!*

YES, IT'S MADE-TO-ORDER for *you*. You—and every woman whose hands must tackle soap-and-water jobs each day.

Fragrant, velvety Trushay—such a different idea in hand care!

Trushay—so oil-rich you smooth it on BEFORE you do dishes, before every daily washing task—and it protects your hands right *in* the hot, soapy water. Actually helps *prevent* its roughening, drying damage—keeps your hands soft and smooth.

Don't let daily chores spoil your hands. Adopt Trushay's "beforehand" care. And remember, Trushay leads a double life, too!

It's wonderful "beforehand"—and it's a wonderful lotion to use *any* time. So keep a bottle in the bathroom, as well as in the kitchen.

Use Trushay as a skin softener, a body rub, a powder base. And always smooth it on before you go outdoors.

Creamy Trushay makes your skin much softer—and guards against painful, ugly chapping. So, begin today to use Trushay.

TRUSHAY

THE "BEFOREHAND" LOTION

A PRODUCT OF BRISTOL-MYERS

Pillsbury's $50,000 Prize-Winning Recipe!

Mrs. Ralph E. Smafield, Detroit, Michigan

—from Pillsbury's
$100,000 GRAND NATIONAL RECIPE & BAKING CONTEST

Pillsbury's $50,000 No-Knead Water-Rising Twists

Adapted for your use by Ann Pillsbury

BAKE at 375° F. for 12 to 15 minutes. MAKES 2 doz. twists.

Combine.... ½ cup **shortening**
3 tablespoons **sugar**
1½ teaspoons **salt**
1 teaspoon **vanilla**
½ cup scalded **milk***

Add..... 2 cakes compressed **yeast**, crumbled (or 2 packages dry granular yeast dissolved in ¼ cup lukewarm water); mix well.

Blend in.... 1½ cups sifted **Pillsbury's Best Enriched Flour** and beat until smooth. Cover and let rest 15 min.

Add..... 3 **eggs**, one at a time, beating well after each addition.

Blend in.... 1½ cups sifted **Pillsbury's Best Enriched Flour** and mix thoroughly. (Dough will be quite soft.)

Let rise..... dough in warm place (80° to 90° F.) about in one of two ways: **(1.) Either** set covered ½ hour; **(2.) or** tie dough in a tea towel, allowing ample space for dough to rise. Then place in large mixing bowl and fill with water (75° to 80° F.). Let stand until dough rises to top of water, about 30 to 45 minutes. Remove from water. The dough will be soft and moist.

Combine.... ¼ cup chopped **nuts** (any kind)
½ cup **sugar**
1 teaspoon **cinnamon**

Divide..... dough into small pieces with a tablespoon. Roll each piece in sugar-nut mixture; stretch to about 8-inch length. Twist into desired shapes. Place on greased baking sheet. Let stand for 5 minutes.

Bake..... in moderate oven (375° F.) for 12 to 15 minutes.

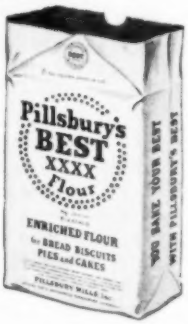
*If dry yeast is used, decrease milk to ¼ cup.

This and 2 Other Grand Prize-Winning Recipes
($10,000 AND $4,000 WINNERS)
NOW AT YOUR GROCER'S!

You heard about it everywhere. And here it is—the food that is so unusual, so delicious that it won $50,000 in Pillsbury's $100,000 contest at the Waldorf-Astoria Hotel.

Now you can be among the first to enjoy Pillsbury's $50,000 No-Knead Water-Rising Twists. These sweet rolls are unique. The secret of making them was passed along to Mrs. Smafield by her mother. And you will find them remarkably simple to prepare. They require *no kneading*, and *rise very quickly* either by regular method . . . or in water, by an age-old, but little-known method.

The $10,000 recipe for Starlight Mint Surprise Cookies can be yours, too . . . and the $4,000 recipe for Aunt Carrie's Bonbon Cake. All you do is go to your grocer's and get all three grand prize-winning recipes!



ALL 3 RECIPES
won with Pillsbury's Best. They require Pillsbury's Best in your kitchen.

Pillsbury's BEST

The secret to . . .

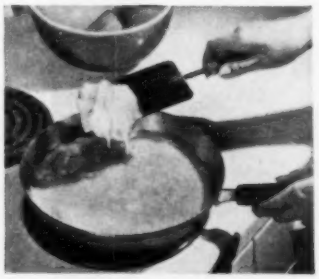
Perfect scrambled eggs

1. Add 1 tablespoon cream, 1/8 teaspoon salt per egg. Beat with fork only enough to blend, or leave streaks of yolk for gold-and-white effect, if desired. Don't overmix

Take a glance at most cook books and nowhere will you find the secret for turning out a platter of tender, golden scrambled eggs. For that reason, maybe you've been having trouble turning them out as you would like.

To master the knack of scrambling eggs easily and quickly, with delicious results, you need to know the four steps outlined on this page. Another tip: when you and your family tire of just scrambled eggs, bring about a change in flavor by adding diced meat, grated cheese, vegetable garnishes, or perky sauce.

2. Heat 1 tablespoon fat in skillet. Add eggs when drop of water sizzles in fat. Use rubber spatula to ease out last bit of egg. Turn heat low so eggs will be tender, moist



3. Don't disturb until eggs start to set at bottom and sides. Lift cooked portions; fold over partially so uncooked eggs go to bottom. Cook until firm, yet moist and glossy

4. Remove pan from heat immediately so eggs will not cook further. Don't let eggs stand in pan—it continues to cook them. Serve at once on a warm platter with bacon or sausage

Here is another MASTER·MIX Recipe

First, **here is your Clabber Girl MASTER-MIX recipe**

6 cups sifted all-purpose flour
2 tablespoons Clabber Girl Baking Powder
1½ teaspoon salt
1 cup shortening

Sift flour, baking powder and salt together. Cut in shortening. Store in covered container in refrigerator. *Now try*

DATE *Nut* MUFFINS

These Muffins are ideal to serve for breakfast, luncheon or supper. Here is the recipe:

2 cups Master-Mix — *1 egg, well beaten*
½ cup pitted dates, cut in small pieces — *1 tablespoon sugar*
⅔ cup milk
¼ cup chopped nuts

Measure Master-Mix into a mixing bowl. Stir in the dates and nuts. Mix egg, sugar and milk together. Add, all at once, to the dry mixture. Stir gently only until the flour is moistened—the batter will look lumpy. Fill greased muffin pans ⅔ full. Bake at 425° F. (hot oven) 15 to 18 minutes. Makes 1 dozen 2-inch muffins. If plain muffins are desired, use the Date Nut Muffin recipe but omit the dates and nuts.

A Jar of Clabber Girl Master-Mix in the refrigerator helps quickly to bake waffles, gingerbreads, quickrolls, cookies, and other interesting and exciting home-baked products.

Guaranteed by Good Housekeeping

CLABBER GIRL
The BAKING POWDER with The *Balanced* Double Action
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Effective Cough Syrup, Home-Mixed for Extra Economy

Saves Big Dollars. No Cooking.

This splendid recipe is used by millions because it makes such an effective medicine for coughs due to colds. It's so easy to mix—a child could do it.

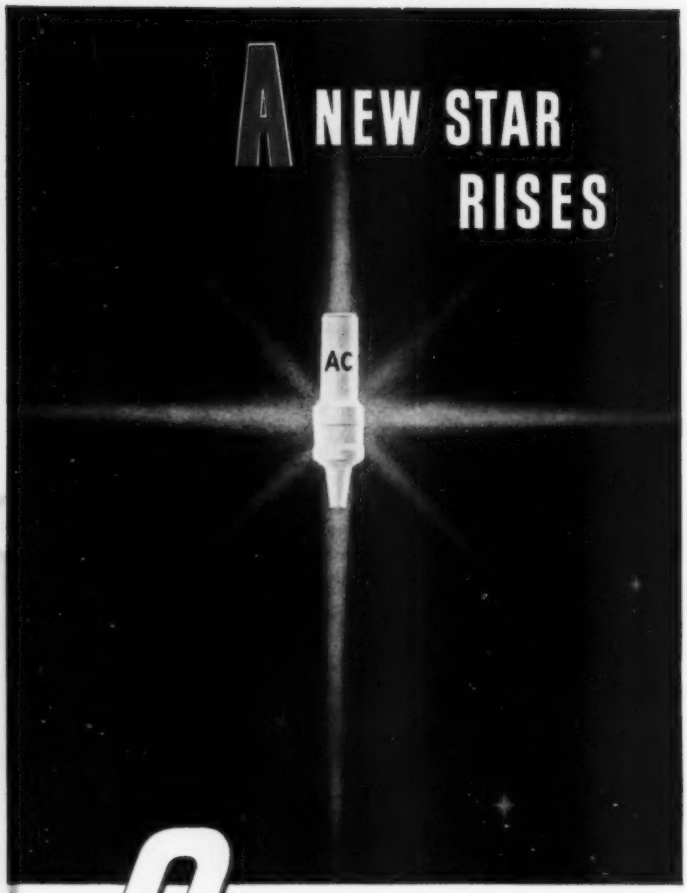
From any druggist get 2½ ounces of Pinex, a special compound of proven ingredients, in concentrated form, well-known for its soothing effect on throat and bronchial irritations.

Then make a syrup with two cups of granulated sugar and one cup of water. No cooking needed. Or you can use corn syrup or liquid honey, instead of sugar syrup.

Put the Pinex into a pint bottle and fill up with your syrup. This makes a full pint of cough medicine, very effective and quick-acting, and you get about four times as much for your money. It never spoils, and children love its pleasant taste.

This cough syrup takes hold of coughs, giving quick relief. It loosens phlegm, soothes irritated membranes, helps clear air passages. Money refunded if Pinex doesn't please.

FOR EXTRA CONVENIENCE GET NEW READY-MIXED, READY-TO-USE PINEX!
THE PINEX CO., FORT WAYNE, IND.



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Among modern farmers, *CORALOX* is rising swiftly in popularity, because it eliminates the principal causes of spark plug trouble.

Fouling at low engine speeds—misfiring under heavy loads—failure due to heat shock—accumulation of oxide coating—these are primarily *insulator* troubles.

CORALOX is AC's patented spark plug insulator. It has 4 times greater heat conductivity—10 times greater insulating value at high temperatures—than the best ceramic insulator material in use before *CORALOX*. It is 3 times as strong. It does not attract oxide coating.

You can see why AC Spark Plugs, with patented *CORALOX* Insulator, will give you easier starting—better idling—faithful firing under heavy loads—in your hard-worked tractor and other farm machines. Ask for, and install, AC Spark Plugs with patented *CORALOX* Insulator in your tractor, truck, and car engines.

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THE FARM

Quizbox

By Gus Larson

Who was the roundest and fattest man in history? Can a 2-weeks-old baby catch a cold? Where do flies hide in winter? If you're curious to know the answers, let's get on to Question 1. Score 5 points for each correct reply to the questions. If you score (a) 90 to 100 points—excellent. (b) 75 to 85 points—fine. You pass. (c) 50 to 70 points—sorry.

1. If one kidney is removed from the human body, the other begins to grow, doubles its size, and does the work of two. Is this statement (a) true (b) false?

2. Seventeen out of every 100 Americans have brown eyes. How many persons in every hundred have blue eyes? (a) 37 (b) 12 (c) 67.

3. In all history, less than a dozen men and women have tipped the scales at more than 700 pounds. How much did the heaviest person of all time weigh? (a) over 1,000 pounds (b) 1,500 pounds (c) 880 pounds.

4. Homely parents cannot have an attractive child. At least so argues neighbor Svea Hultgren. Would you guess that Svea is (a) right (b) wrong?

5. Suppose we number a horse's legs as follows: left front, 1; right front, 2; right rear, 3; left rear, 4. In what order does a horse lift its legs in a walk? (a) 1,3,2,4 (b) 1,2,3,4 (c) 4,3,2,1.

6. A cow pumps a lot of blood through her udder to produce one pound of milk. Can you guess how much? (a) 100 pounds (b) 400 pounds (c) 1,500 pounds.

7. Neighbor A states: "The memory function is confined to one compartment of the brain." Neighbor B argues: "Memory is a function of the whole brain." Who is right? (a) A (b) B.

8. Dairyman Justa Bjornsen said: "Good milk cows always have plenty of easy-to-see udder and belly veins." Justa's son, Jussi, disagrees. Who is right? (a) Justa (b) Jussi.

9. What famous American died after the following medical treatment: four blood lettings; a gargle of molasses, vinegar, and butter; application of dried beetles to throat? (a) Lincoln (b) Washington (c) Garfield.

10. Each day the average American eats food that is the product of 3 pounds of corn. That makes a pound of corn per meal. (a) true (b) false.

11. Herdsman Elmer Stott said: "Never strike a cow for kicking. She will only get worse." Per Ander disagreed: "Hit the cow to cure a kicker." Who is right? (a) Elmer (b) Per.

12. A new device may give hearing and speech to many totally deaf mutes. Through use of this device the person will be able to hear through (a) finger tips (b) radio (c) television.

13. Ducks are not particularly good breeders after the second year. Geese may be used as breeders for (a) 1-2 years (b) 2-3 years (c) 6-8 years.

14. On a sunny winter's day some flies usually come out of hiding to pester one. Where do they hide? (a) one foot underground (b) in such places as haystacks, barns, and behind pictures (c) 1,000 feet in air.

15. It is called the oldest city in the world. It was once noted for its fine swords. John the Baptist once walked its streets. What is the name of this city? (a) Jerusalem (b) Sevastopol (c) Damascus (d) Ninevah.

16. The 25-million volt betatron at the University of Illinois was recently credited with healing (a) a cancer of the larynx (b) anemia (c) heart disease (d) tuberculosis.

17. Babies under 2 weeks of age (a) catch colds more easily than adults do (b) practically never catch colds.

18. Animals are smarter than we think. Some will even work intricate puzzles for fun. Which of the following animals are the best thinkers? (a) apes (b) dogs (c) horses.

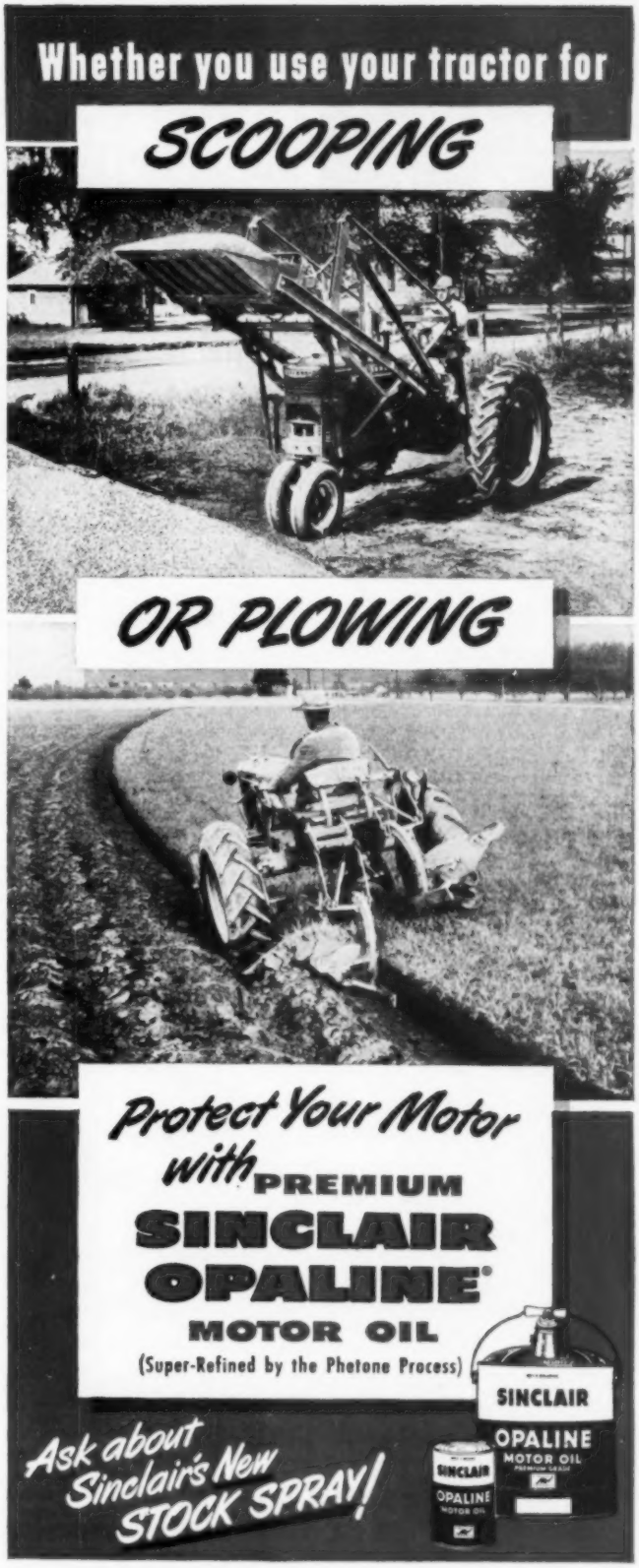
19. Pesky cold sores! That's putting it lightly. How do we get these cold sores and fever blisters? (a) from cold or fever (b) from a virus (c) from acid juices (d) from eating too much protein.

20. Television is not as new as you think. Television stations and receiving sets were operating as early as the year 1929. (a) true (b) false.

Answers on page 163

SUCCESSFUL FARMING

"Now wait a minute, Jules, *did* you or *didn't* you wear your red plaid scarf?"



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*Sample pack of Marlin Blades included with our compliments.

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Successful Farming presents a

Portable brooder house

It's easy to build and it will give you years of low-cost service as well as healthier chicks

The good features of brooder house construction aren't exactly new and startling, but it's seldom you find so many good features in one brooder house. The plan set, No. 50S03, we're offering you here has them, and you can save yourself money by building this brooder for those soon-to-arrive chicks.

Let's take a look at some of the construction details. The diagonally laid flooring and roof deck are strong and rigid, and the double-floor joist in the center of the house prevents sag resulting from the long-time load of a heavy brooder. This 10′x12′ portable house will take care of 250-300 chicks.

The brooder house should face south so the windows will provide plenty of natural light. The outside shutter on the center window can be closed to protect the glass or glass substitute when the house is not in use. In the drawing, the window areas are covered with poultry mesh, and the glass or glass substitute is not shown.

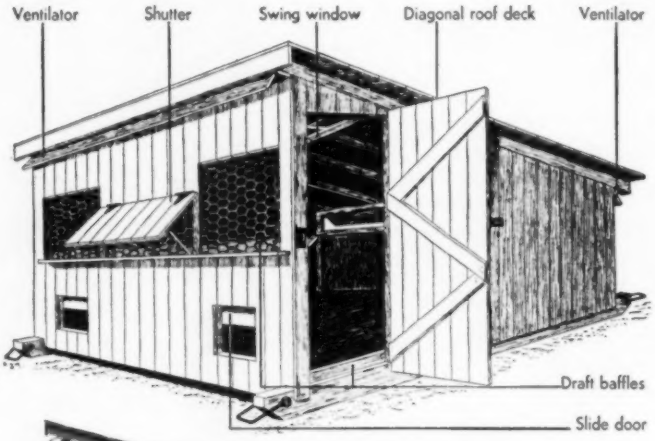
In this brooder house, some ventilation is always possible even when all shutters and windows are closed. The 1″ slot opening under the front rafter overhang lets in fresh air. The ventilation can be increased to a maximum by opening the ventilation board beneath the front rafter overhang, then tipping in the windows and opening the back ventilation shutter.

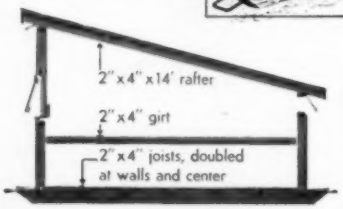
The front ventilation board can be hooked shut. The rear ventilation shutter and the front shutter over the center window may be hooked open or buttoned shut also.

Barrel bolts slide into holes in the casings on the other windows and combine with screw eyes to hold the windows open in several positions. The two glassed sashes can be hinged from the bolts and hooked to the rafters to permit a full opening. The glass or glass-substitute frame slides up to permit a full opening, also. A baffle board (see drawing) provides for no-draft ventilation when the three windows (including the shuttered, center one) are raised only a few inches.

A double floor is desirable in a brooder house for the extra insulation it affords. However, for economy, one or two thicknesses of 25/32″ insulation board can be used, and it should be covered by a sheet of ¼″ exterior-grade plywood, hardboard, or cement asbestos board.

[*Turn to page 106*





Drawing above illustrates seven advantages of this brooder house. Rigid construction is shown in drawing at left. Both of the ventilators are hinged

By Charles H. Reed
Rutgers University

GET THE FACTS, MR. FARMER!

Ask any Willys-Overland Dealer for Results of

Nebraska Tractor Test of The Universal 'Jeep'

Official Tractor Test No. 432, conducted by the Agricultural Engineering Department of the University of Nebraska, Lincoln, October 25 to November 2, 1949.

Buy the Farm Power Unit That Will Do All These Jobs

THE 4-WHEEL-DRIVE Universal 'Jeep' has the traction, speed range and drawbar horsepower for tractor work, using either pull-type or hydraulic-lift implements. Ask your dealer about the Nebraska Test.

STEEL PICK-UP BED and 2-wheel-drive speed range up to 60 m.p.h. makes the Universal 'Jeep' useful for hauling on the highway or in the field. 4-wheel drive gets through mud when other vehicles can't.

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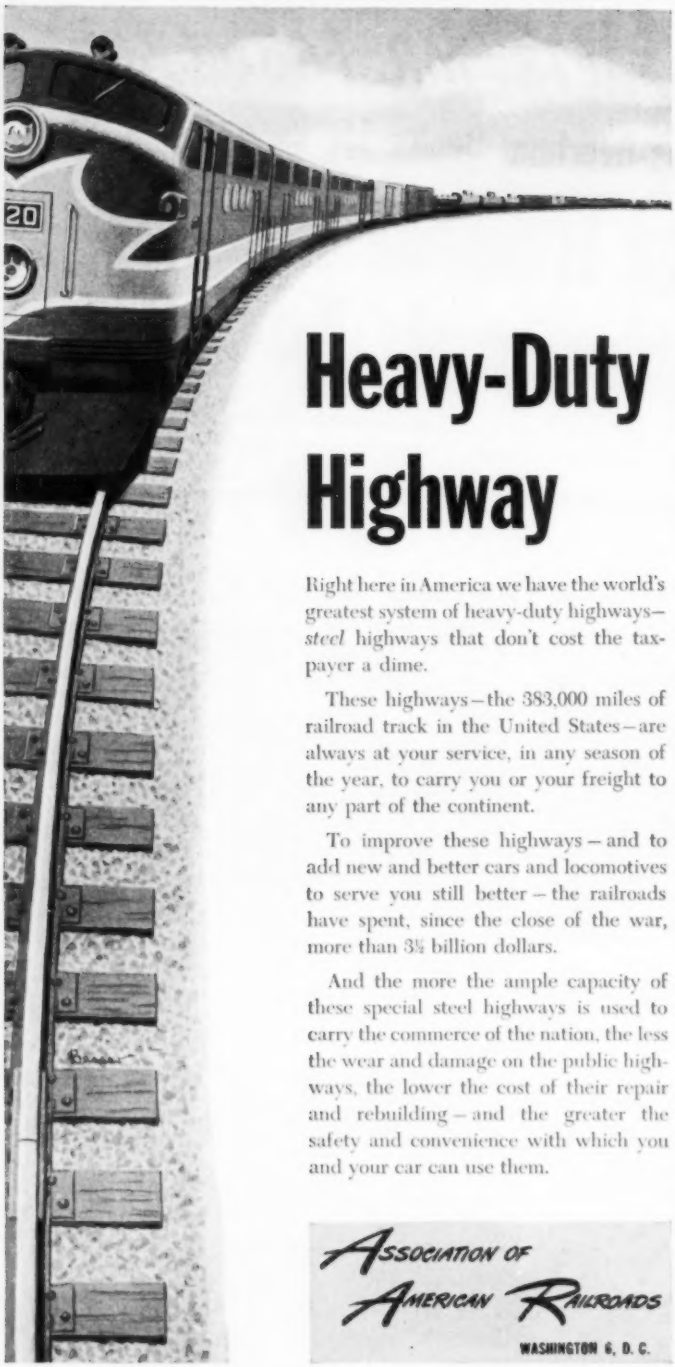

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And the more the ample capacity of these special steel highways is used to carry the commerce of the nation, the less the wear and damage on the public highways, the lower the cost of their repair and rebuilding—and the greater the safety and convenience with which you and your car can use them.

ASSOCIATION OF AMERICAN RAILROADS
WASHINGTON 6, D. C.

Listen to THE RAILROAD HOUR every Monday evening on NBC.

Portable brooder house

[*From page 104*]

If you prefer horizontal siding, studs 2′ on center can replace the girts shown in the plan. For greater durability, the tongue-and-groove siding should be painted when nailed in place. Floor, roof deck, and wall areas are given on the plans so that materials other than those specified in the materials list can be used.

Impregnation, soaking, or numerous applications of a good wood preservative will retard the rotting of the skids. The skids have clevis holes at both ends for easy moving.

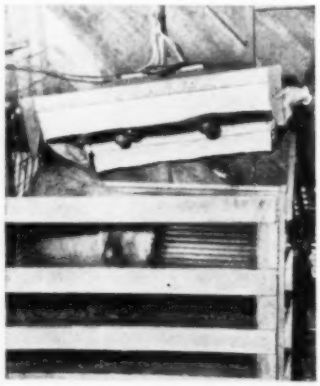
This is a brooder house you can easily build yourself. And when it's built you'll have the latest in chick-saving, money-making features.

How to get plans: *A full-sized sheet of detailed construction drawings and a cost-finding list of every material needed and its size and quantity will be sent to you postpaid for only $1. Or, if your local lumber dealer is a cooperator in our Building Service, you can get the plans more quickly from him. When ordering by mail, please address* Successful Farming, *1003 Meredith Building, Des Moines 3, Iowa. And be sure to mention the order number of this brooder house—30803.*

Easy-to-build lamb brooder

This lamb brooder saved a number of lambs during cold weather for Curt Polst, Osage County, Missouri. Polst used the shield from an ordinary chick brooder in building his lambing-pen heater.

The shield is wired and will handle four bulbs or heat lamps. The shield is raised or lowered to the correct height by a pulley and rope. The small canvas curtains help hold the heat when the brooder is lowered into a pen at lambing time. If you aren't a lamb raiser, this brooder can also be used for pigs at farrowing time. Ordinary window screening can be fastened across the bottom of the brooder. This will make it impossible for animals to come in direct contact with the bulbs. The number of bulbs used will depend on the weather and how warm you want to keep the animals.—*Arthur Edwards.*



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Do you, too, insist on seeing that Oshkosh B'Gosh label in every garment you buy for work or knock-about wear? That's the one sure way to *know* you're getting the smartest and best looking garments your money can buy—the extra economy of the strongest, longest wearing materials—the extra comfort of garments "tailored-to-fit" and Sanforized to stay that way.

What's more, there's a special style expressly designed for your particular need. If you don't see it pictured here, ask your dealer or write us direct. We are always glad to help you in any way we can in supplying your work-wear requirements.

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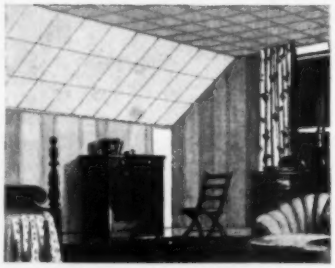
No investment you could make pays bigger dividends than modernizing farm buildings. A small amount spent on remodeling your home can add a whole new world of comfort and convenience. A modest sum spent on more efficient insulation for dairy barns, poultry houses and other farm buildings can mean greater production and profits. And with farm conditions still advantageous, it's just good business to do this vital job right now!

You can be sure of best results, *and save money too*—by using famous Celotex Building Products that perform several basic functions *at one low cost!* Come in and let us demonstrate how remodeling or building the thrifty Celotex way can make *your* farm more livable and more profitable. We'll be happy to discuss all your building requirements with you. No obligation, naturally!

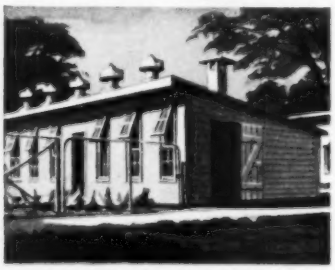
Your helpful Celotex Dealer



Turn unused space into extra rooms with Celotex Insulating Interior Finishes. Ideal for beautifying old rooms, too. Quick, easy to install, and inexpensive. Variety of stunning colors and textures.

Improve milk production by insulating dairy barns with sturdy Celotex Insulation Board. Makes possible better ventilation. Helps cows stay healthy, produce more by keeping barns warmer, drier in winter, cooler in summer.

Make your home weatherproof with a roof of Celotex Triple-Sealed Asphalt Roofing. Assures staunch protection against wind, rain, snow. Fire-resistant. Comes in beautiful harmonized colors and designs.



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ALSO AVAILABLE—COMPLETE WORKING PLANS for modern, more efficient new farm buildings. Send $1.00 for each set of 17" x 22" plans you check below.

☐ Brooder House ☐ Laying House
☐ Milk House ☐ Tobacco Barn
☐ Dairy Barn (1-story, 20-cow)

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What's new in farming

[*From page 10*]

University of Wisconsin research. The crusher consists of two large steel rollers, which crack the stems of the hay as it passes through them. The cracked stems dry much more rapidly than whole stems, and the Wisconsin tests showed crushed hay was ready for the mow in less than two-thirds the time otherwise needed for curing.

Barn lime spreader. Lime cannot cling to the sides of the hopper of this spreader, claims the manufacturer. The hopper is aluminum and rustproof. A cast-aluminum "kicker" is designed to spread the lime evenly in a 4- to 6-foot swath. Wet or dry lime can be used in the spreader, and it can also double as a fertilizer or seed spreader for lawns.—*Northland Engineering and Manufacturing Co., Kaukauna, Wisconsin.*

Barn lime spreader

Shows advantage of lime. A six-year experiment on Volusia silt loam in Cortland County, New York, has shown the value of lime in a crop rotation.

Manure, lime, and phosphate were compared with manure and phosphate in a three-year rotation of corn, oats, and one-year clover-timothy hay.

The addition of one ton of lime per acre to each rotation (with manure and superphosphate) more than doubled the yield of corn silage, oats, and hay over manure and phosphate alone.

Besides making the phosphate available, the lime also permitted good growth of clover, which added nitrogen to the soil.

Build up eroded soil. Can land which has been eroded down to the subsoil be built up with fertilizer and crop rotations within a reasonable period of years? Experiments on this have been conducted at the Missouri Station.

In 1939, the topsoil was scraped away from plots at Columbia. That fall, the subsoil was treated with 150 pounds of 4-12-4 fertilizer, and wheat was seeded. The harvest of wheat the following spring was 11.5 bushels on the scraped soil as compared to 28 bushels from a normal adjoining plot. Another plot with the subsoil exposed yielded 18.8 bushels of corn the first year as compared with 48 bushels for normal soil.

Have you tried *Successful Farming's* Farm and Home Service Bureau for free, postpaid answers to your home and farm management problems? Why not write us about them now?

The Kuhrs find ways

[*From page 39*]

litter cost in half. The large picture on pages 38 and 39 shows Mr. Kuhr adding a layer of cob litter.

The built-up system is used in the two hen houses, too. Until last year, they used straw, but now they've switched to corncobs, which are cheaper and more satisfactory. Cobs for hens are chopped, not crushed.

After eating an average of 2 pounds per head of commercial starter, the chicks are switched over to a grower mash. The change-over is made by mixing 2 parts starter with 1 part grower the first day, and then adding a higher proportion of grower each succeeding day. The shift is completed in five days.

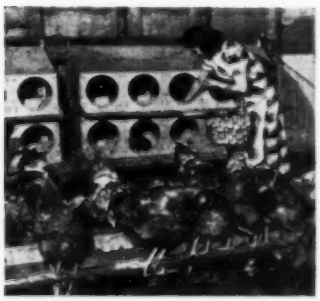
Until last year, the Kuhrs had their grower mash mixed at the elevator, but, to save extra trips to town, they are now using a 36-percent commercial supplement, mixed with their own grains. They feed this grower with all the whole oats the chicks will eat. They still mix their own laying mash.

The range shelters have wire netting over the perches to keep pullets out of the manure. Mr. Kuhr made one range shelter from an abandoned hog house.

On this matter of producing a better product and getting a higher price, the cockerels left in the barn loft after the pullets are removed are fed until 12 weeks old. They aren't held until they get

[*Turn to page 110*

Cockerels dressed, singed by Mrs. Kuhr. They are sold New York dressed because less labor, time required. Means more profit



Twice daily gathering helps to earn the 5- to 7-cent premium for market eggs. These hens in lower part of barn, chicks upstairs

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Make Your Garden a Gorgeous Showplace!

GUARANTEED-TO-BLOOM

12 Gladiolus Bulbs

SPECIALLY SELECTED FOR VIVID COLORS!

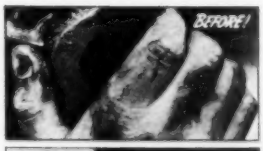
Only 25¢

REGULAR 75¢ RETAIL VALUE

AND ONE LAVA SOAP BOX-FRONT

Imagine your garden alive with color! Bright pinks, gay yellows, flaming reds! Every bulb guaranteed to bloom into a beautiful plant this year — or money back! Order as many sets of 12 as you wish . . . but for each set mail 25¢ and one LAVA SOAP box-front.

LAVA SOAP GETS EVEN DIRTIEST HANDS EXTRA-CLEAN IN 30 TO 50 SECONDS!



NOTHING CLEANS BETTER THAN

LAVA

The good gray bar with the creamy, snow-white lather

SWIFTLY ROUTS OUT DIRT ORDINARY SOAPS MISS— YET IT'S AMAZINGLY GENTLE!

See for yourself! LAVA *cleans* so much *faster* — so much *better*. Quickly gets the stubbornest dirt, machine oil, grease — even paint, rust and tar.

ONLY LAVA HAS THIS DOUBLE-ACTION

1) In every inch of LAVA's lather, 50,000 tiny scrubbers rout out ground-in dirt.

2) Yet LAVA is amazingly gentle! LAVA contains the same soothing ingredient as costly hand lotions!

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Please send me ..... sets of 12 assorted Gladiolus Bulbs. I enclose .....¢ in coin (*no* stamps) and ..... LAVA SOAP box-front(s). (Be sure to enclose 25¢ and one LAVA box-front for every dozen bulbs ordered.)

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GUARANTEE: If you are not fully satisfied with the plants produced by your bulbs, notify us and your 25¢, plus postage, will be refunded. **THIS OFFER, GOOD ONLY IN THE U. S., EXPIRES MIDNIGHT, 4-30-50**

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and yet
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DUBL-CHEM-FACED MILK FILTER DISCS
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"These are the only filter discs I've used that really get everything out of the milk by straining once"

Many farmers tell us that ONE does the work of TWO ordinary filters. You save money at every milking!

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Buy this 3-carton PACKAGE of 300 and save money

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the modern cleaners
(6 for 39¢ . . . economical, sanitary, lint-free, last a long time)
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SCHWARTZ MFG. CO., Two Rivers, Wis.
AMERICA'S FOREMOST MANUFACTURER OF SANITARY FILTERING AIDS FOR DAIRYMEN

The Kuhrs find ways to more poultry profits

[*From page 109*]

tough and staggy as happens on so many farms.

The Kuhrs think there's more profit in selling them dressed than alive. Mrs. Kuhr hangs them by the feet from loops on the end of ropes fastened to a board. Using a pocketknife with a long, thin blade, she sticks them through the mouth. By hitting the right spot, the birds bleed readily, muscles relax, and feathers come off with relative ease.

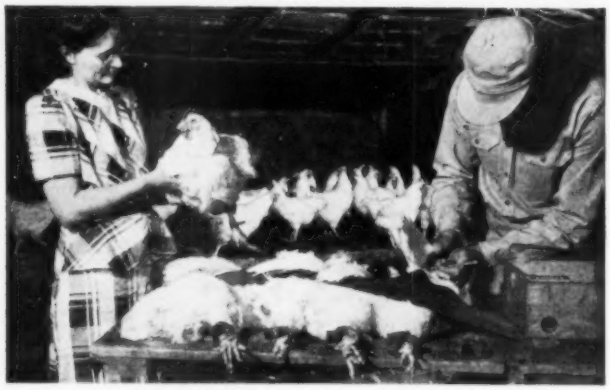
As shown in the picture on page 109, the cockerels are picked, singed, and sold New York dressed. The birds could be sold dressed for the pan, but Mrs. Kuhr doesn't think that the extra money would pay for the additional time and labor. A local meat market usually takes all of the dressed cockerels produced on this farm. Old hens are handled the same way.

The pictures on this page and 109 show that the Kuhrs do almost everything they consider practical to produce a better egg and get a higher price. Patricia Kuhr and her mother gather eggs at least twice daily and take them immediately to the cave for cooling and casing.

The droppings pits and the areas surrounding the waterers are wire-covered to keep the hens' feet cleaner and hold to a minimum the soiling of eggs in nests. Market eggs are sold at a 5- to 7-cent premium and, during hatching season, eggs are sold for a 12-cent premium over the Omaha Grade A market, which in turn is 6 to 8 cents above the local price.

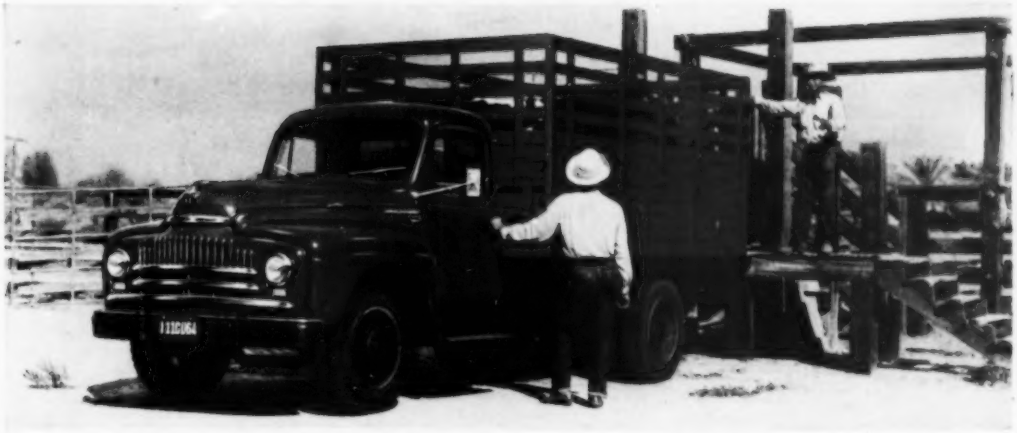
No, the Kuhrs aren't missing many bets in this matter of getting more out of farm poultry production. They want their business to pay this year, and every year.

Cool cave makes good storage place for eggs, both summer and winter. Here Patricia helps Mother with the eggs, her regular job



Pullorum testing is a regular requirement for selling to local hatchery, and the Kuhrs get 12 cents a dozen premium over Omaha Grade A price. Selling to a hatchery doesn't always seem attractive but looks good when the egg market slumps

Remodeled hen house formerly was a shed 12' deep. The front was extended to make it 22' deep. Hens, confined to keep away from young stock, shed fewer feathers about premises. Also, can control what hens eat, get cleaner, better eggs. **END**



Whether you haul livestock . . . milk . . . or take a family trip to town

NEW INTERNATIONAL TRUCKS

are *Heavy-Duty Engineered* to save you money

Every new International L-Line Truck is heavy-duty engineered to stand up and deliver real value in any farm season.

We can make that statement regardless of the kind of work trucks do for you. We can make it for the same reason you expect better blood lines to produce better animals. Here are the facts:

For 18 years, Internationals have led in sales of heavy-duty trucks. The men who gave Internationals that vote of confidence are cost-conscious. They buy value. They choose Internationals.

The same management, engineers, production men, and test experts who have kept Internationals first in the heavy-duty field have developed every new model. Now the extra stamina of heavy-duty engineering is yours in every new International L-Line Truck.

Easier handling, easier riding—in the new Comfo-Vision Cab! Model for model, here's the "roomiest cab on the road!"

You sit on wide, deep seats. You have more head, knee, and leg room. You have full vision through the one-piece Sweepsight windshield.

A two cluster arrangement makes everything easy to read or reach on the curved-contour instrument panel. "Natural angle" steering gives more positive control from a more comfortable position . . . plus maximum maneuverability in field or market.

See all the practical improvements that are yours in the new Internationals . . . visit your nearest International Truck Dealer or Branch, soon!

International Harvester Builds
McCormick Farm Equipment and Farmall
Tractors . . . Motor Trucks
Industrial Power . . . Refrigerators and Freezers

Tune in James Melton and "Harvest of Stars," NBC, Sunday afternoons

See the ***ALL NEW, ALL PROVED***

INTERNATIONAL TRUCKS

INTERNATIONAL HARVESTER COMPANY CHICAGO

"I spent less than $50 to re-do this love-of-a-LIVING ROOM!"

There's a Bird Armorlite Rug to brighten every room—Pattern shown is #6315

"The whole redecorating job—from my new Bird Armorlite Rug to my smartly styled drapes—cost me less than $50!"

YES . . . and it's fun to do it all yourself with a little ingenuity and the Bird "Color Schemer" described below! First, start with the floor . . . a budget-bright Bird Armorlite Rug in rich decorator's colors! Bird Armorlite's tough enamel surface is made with special resins—it stays satiny smooth and mild soap and water keep it clear and bright! Bird Armorlite's makers have been manufacturing floor coverings since 1888, fine products since 1795—more than 150 years of manufacturing quality products!

Try the ideas shown here . . . or perhaps Bird's "Color Schemer" can help you! There's no limit to what you can do with the right ideas, and a sparkling Bird Armorlite Rug!

Coral accent color from your Bird Rug outlines ornate picture frames.

Use plain paper drapes, and sew on a ball fringe of coral.

For a coffee table . . . a folding trunk rack topped with a lacquered tray!

Try your favorite colors, drapes and rug patterns in the "Color Schemer." It's full of clever ideas . . . costs just 10c . . . send to address below or see your nearest Bird dealer.

2 pints enamel paint, about $2.00. 1 gallon wall paint, about $5.00. Paper drapes, per pair, about $.89. 8 yards ball fringe, about $2.00. Baggage rack and tray, about $10.00 . . . add your Armorlite Rug (from $5.95 to $14.95, depending on size and geographical area) . . . the cost is still less than $50.00!

BIRD Armorlite and Linoleum

FLOOR COVERINGS

BIRD & SON, Inc. EAST WALPOLE, MASS.

Also Manufacturers of Famous Bird Master-Bilt Shingles and Insulated Sidings

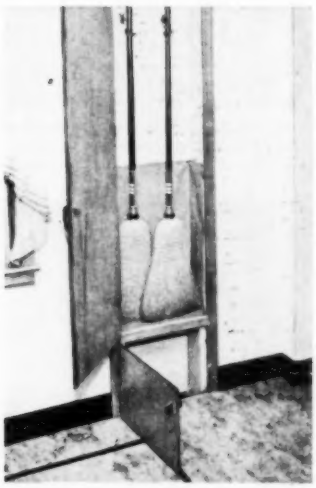
Good ideas

Here are four clever ways to make odd corners in your home useful with simple built-ins

This was once an unused doorway. The lower panels of original door were retained; then shallow shelves and a curved cornice were built in above to form useful wall niche

To separate living and dining areas in this home, simple but attractive open display shelves were added on each side of doorway and painted to match rest of woodwork

A useless corner in this kitchen became a clever dining area when counter and chairs were added. Chairs have solid backs, look like cabinets when pushed under counter



The wall between two studs was knocked out to provide the space for this broom closet and clothes chute to basement. This is possible in a home with standard-size walls. END

The Ideal Way to Sleep

Here in the buoyant luxury of Karpen's exclusive Pil-O-Rest is the kind of sleeping comfort you've been looking for! Designed for complete body relaxation, Pil-O-Rest alone offers this healthful sleep-inducing combination . . . soft, channeled pillows that conform to every body contour, plus the healthful support of a firm yet resilient tuftless innerspring mattress.

Now, thanks to the magic of Pil-O-Rest's "comfort-contour," you actually rest in pillowed comfort while sleeping on a firm, tuftless innerspring mattress. The result is a really restful, relaxing sleep heretofore unknown! See your nearest Karpen dealer for details today. Other mattresses in the Healthway line $39.50 and $49.50.

KARPEN

Pil-O-Rest

Reg. U. S. Pat. Off.

$59.50

Matching Box Spring—$59.50

(Slightly higher west of the Rockies.)

The First and Only Mattress with this exclusive Sleep-Inducing Combination

A Complete Innerspring Mattress plus Channeled Pillows Top and Bottom

S. KARPEN & BROS.

Chicago • New York • Los Angeles • Lexington
Dyersburg • San Francisco

KARPEN Guaranteed MATTRESS

From the Healthway® line

Manufacturers of Karpen Guaranteed Furniture Mattresses and Transportation Seating

Never in all my married life...

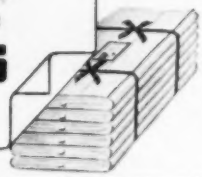
"Never in all my married life have I found sheets that have given such service as Pequots. Like any thrifty housewife, I'm delighted to say that in Pequots I have more than my money's worth."
—*Mrs. James G. Wilson, Pontiac, Michigan.*

Wonderful, wonderful Pequots! Not only do they wear *extra* long, but they seem to get even lovelier . . . softer, mellower . . . as they grow older . . . like truly beautiful linen. Pequot Mills, Salem, Mass.

PEQUOT PLUS-SERVICE SHEETS PILLOW CASES

Pronounced 'PEE-KWAT'

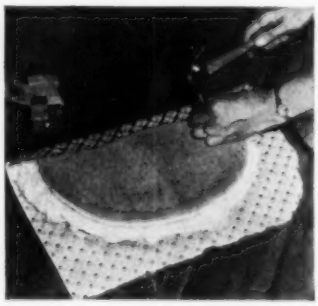
PEQUOT plus-service SHEETS



This used to be a nail keg

Here's a bright addition to your bedroom, or a child's playroom, to be made for next-to-nothing

1. Cut top from 3/4" lumber after making pattern of paper 1/4" larger than top opening of keg. Saw in two near back to form the lid

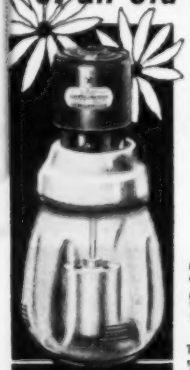


2. Cover lid sections first with cotton felt or batting, then with fabric. Round all edges with padding except edges to be hinged

You can rely on the advertising in Successful Farming. It has received our guarantee. Read this guarantee on the index page.

A home planning service tailored to farm living is being offered by one store near you. See page 62.

A New Version of an Old Favorite!



Model 4
1 Gal. Gross Capacity.
Model 8
2 Gal. Gross Capacity.

Model 66
6 Gal. Gross Capacity.
Model 1010
10 Gal. Gross Capacity.
110 Volt, A. C.-60 Cycle.

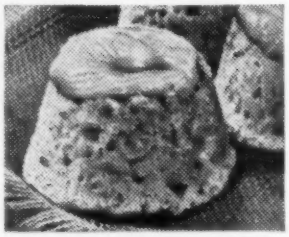
Model 4-E-R — 1 Gal. Gross Capacity 115 Volt, A. C. — 60 Cycle Cylinder Rotor-Dasher DAZEY ELECTRIC CHURN

Today's improved version of the Dazey Churn Grandmother used. Churns up to 1/2 gal. quickly, quietly and dependably. Easy to use and clean. Economical. Sensibly priced. See it at your dealer's, or write:

DAZEY CORPORATION • ST. LOUIS 7, MISSOURI

Be Sure it's a DAZEY

Form a Dazey Chain of Kitchen Products • Can Opener Knife Sharpener • Juicer • Ice Crusher • Blend-R-Mix • Nut Cracker • Famous Dazey Churns



SWEET UPSIDE-DOWN BRAN MUFFINS

No creaming, no egg-beating — one easy mixing this Kellogg-quick way!

- 1 cup Kellogg's All-Bran
- 3/4 cup milk
- 1 cup sifted flour
- 2 1/2 tsps. baking powder
- 1/2 tsp. salt
- 1/4 cup sugar
- 1 egg
- 2 tbsps. soft shortening
- 1 1/2 tbsps. melted butter
- 3 tbsps. brown sugar
- 9 cooked prunes or apricots, pitted

1. Soak All-Bran and milk in mixing bowl.
2. Sift together flour, baking powder, salt; add to bran with sugar, egg, shortening. Stir only to combine.
3. In each greased muffin cup place 1/2 tsp. melted butter, 1 tsp. brown sugar, 1 piece fruit, cut side down.
4. Add dough to fill cups 2/3 full. Bake in mod. hot oven (400°F.) about 25 min. 9 med. muffins.

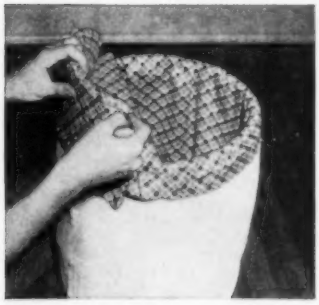
America's most famous natural laxative cereal for diets of insufficient bulk — try a bowlful today!

Kellogg's ALL-BRAN

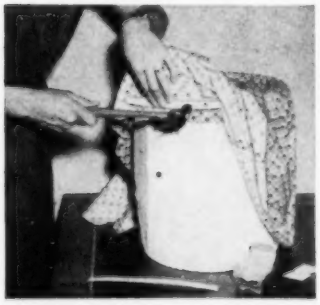
A saw, a few tacks, and about two yards of material will convert an old nail keg into this attractive stool for your home. Inside, there's plenty of storage for toys, sewing, or laundry.

Three inches are sawed off the top of the keg, except for three staves on one side. These form the tiny back rest. A two-piece cover is then cut from ¾" lumber to form the seat. Note Figure 1 for detail of how backing and the main part of cover are joined. Seat and back are then padded with cotton; keg is covered first with an old sheet; then final bright cotton skirt is added.

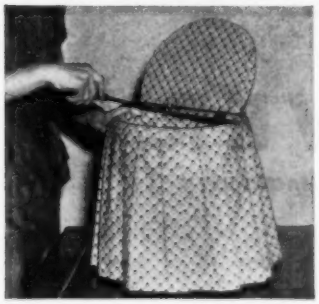
It's as simple as that, and the results are worth many times the work. Use three or four to solve your storage needs in several rooms.



3. Cover outside of keg and bottom with old sheet to prevent damage from rough finish. Line inside with print to match outside fabric



4. Press equal pleats in skirt all around, then tack on inside to top edge of keg. Narrow strip of cardboard will hold top edge firm



5. Screw two small hinges to inside edges of lid so cover will open and close. Hem skirt ¼" shorter than keg so it hangs freely. END

MARY MARGARET McBRIDE

noted cooking authority, says:

"*Use the Best to make the Best*"

Nationally recognized food expert and America's No. 1 Lady of the Air, Mary Margaret McBride believes that it takes more than practice to be a prize-winning cook. "You've got to be extra careful about what ingredients you use," she says. "When you bake at home, for instance, use a good, lively yeast if you're aiming for good results. I just know you'll like Fleischmann's. It's a yeast with lots of 'get up and go.' "

No wonder prize-winning cooks prefer Fleischmann's Yeast. Always fast rising, always active—you can count on it every single time. Ask your grocer for Fleischmann's Yeast today.

AB-SORB-ENT TOWELS TOWELING by BOOTT MILLS

EASY EXTRA CASH PLAN

Sell FRIENDSHIP Everyday Cards

GET SAMPLES

Boost your family income! Show stunning Everyday Greeting Cards to friends, others you know. No experience needed. Big values assure fast easy sales! Everyone buys 15-Card "Iris" Assortment for just $1. Pays you up to 100% Profit. Also 2 PLASTIC Card Assortments, Gift Wraps, Metallics, Name-Imprinted Selections, others. Write now for FREE Imprint Samples and Assortments ON APPROVAL.

FRIENDSHIP STUDIOS, INC., 80 Adams St., Elmira, N. Y.

New MIRACLE WALL CLEANER

QUICK EASY

Saves Costly Redecorating

AMAZING INVENTION. Banishes old-style housecleaning mess and muss. No rags—no sticky "dough"—no red, swollen hands. No more dangerous stepladders. Literally erases dirt like magic from Wallpaper, Painted Walls, Ceilings, Window Shades. Take orders from friends! Earn money! Act now!

SAMPLES FOR TRIAL

Sample offer sent immediately to all who send name at once. A penny postal will do. SEND NO MONEY just your name. KRISTEE CO., 1233 Bar Street, AKRON, OHIO

Advertising in Successful Farming is carried under the guarantee on the index page.

"WHY I ALWAYS USE 'MUSTEROLE' FOR BABY'S CHEST COLDS

to relieve coughs — aching muscles

"Whenever my child gets a cold—I immediately rub her chest, throat and back with Child's *Mild* Musterole—made *especially* for young kiddies' tender skin.

"It's such a comfort how Musterole brings fast, long-lasting relief from coughing colds—how it starts right in to break up congestion in upper bronchial tubes, nose and throat. You simply can't beat it!"

P.S. There's also Regular and Extra Strong Musterole for adults.

Raise Row Crop Profits with an OLIVER Row Crop!

An Oliver Row Crop tractor is your perfect choice for planting and caring for a wide variety of row crops. Its six forward speeds give you the proper working pace for any practice. Conveniently grouped controls and a revolutionary rubber torsion spring seat provide unequalled comfort and handling ease . . . enable you to stay on the job longer and accomplish more.

See your Oliver dealer before spring field work begins. From the full line of 31 Oliver Row Crop matched implements and attachments, you can select the mounted equipment that meets your exact needs. What's more, these mounted tools are basically interchangeable among the Oliver "66", "77" and "88" models. The Oliver Corporation, 400 West Madison Street, Chicago 6, Illinois.

A parallelogram coupling keeps Oliver tractor mounted tilling, planting and cultivating tools on an even keel. These diagrams show how the gangs always stay level and are permitted to float independently.

The Oliver Corporation F5-3
400 West Madison Street, Chicago 6, Ill.
Please send me literature on
( ) Row Crop tractors. ( ) Mounted tools.

Name . . . . . .

Post Office . . . . . .

Rural Route . . . . . *State* . . . . . .

OLIVER

"FINEST IN FARM MACHINERY"

Oliver "66", "77" and "88" tractors are built in 6 basic types and 8 variations

Overgrazing packs pasture soil

By S. R. Winters

To simulate a dairy cow's trampling down pasture by intensive grazing, a man's walking back and forth repeatedly on a plot of soil caused the water runoff to jump from 0 to 36 percent. There was a corresponding decline in water seeping into the bluegrass sod.

A moderately grazed patch, trampled also by the foot of man after the bluegrass was clipped to one inch, resulted in a mounting water loss from 20 to 60 percent.

These and other field trials were begun recently by Professors R. B. Alderfer and R. R. Robinson of the Pennsylvania Agricultural Experiment Station. They wanted to test the theory that trampling of pasture or grassland, by heavy grazing of dairy animals, multiplies the water runoff.

The percentage of water losses may vary from 0 to 80, depending on intensity of grazing and compactness of the pasture soil. Generally speaking, water losses are disastrously high on overgrazed pastures, with virtually no runoff on ungrazed areas. The packing effect of cattle's trampling is apparent in the first inch of surface soil.

In the Pennsylvania pasture-grazing trials, applying fertilizer to bluegrass-clover increased the cover of vegetation, increased the absorption of water into the soil, and therefore lowered water runoff. On pasture plots excessively grazed, a treatment of manure and superphosphate was credited with holding 40 percent more moisture, and the rate of water penetration into the soil more than doubled.

Orchard grass, not grazed, showed no perceptible water runoff. But when this grass was clipped to one inch, water loss amounted to 15 percent. Removal of the mulch, following clipping of the grass, jumped the runoff to 27 percent.

On still another plot of bluegrass and clover, not grazed for five years, there were not enough water losses to register. Following moderate grazing, however, a 20-percent runoff was recorded. With excessive grazing, this figure was boosted to a 75-percent water loss. END

SUCCESSFUL FARMING

"You aren't just saying these nice things because I have a high butterfat rating?"

insist on inhiston

THE ANTI-HISTAMINE TABLET

New Wonder Drug to

STOP COLDS

The Inhiston formula is

TWICE AS EFFECTIVE IN ANTI-HISTAMINE ACTION

as any other formula offered for public sale!

You've heard and read about *Inhiston*—the *anti-histamine* tablet that can miraculously *stop colds!* You've learned that prompt anti-histamine treatment gives you a chance to go through the whole year *without a single cold.*

Give yourself the *full* benefits of anti-histamine treatment—insist on Inhiston. The Inhiston formula is *twice as effective in anti-histamine action* as any other formula offered for public sale! With this great new drug discovery, the great majority of colds CAN BE STOPPED—AND STOPPED FAST! Take Inhiston promptly—at first sign of a head cold. Don't let that sneeze or sniffle develop into a full-fledged cold—stop it fast with Inhiston!

At your druggist's: pocket pack, 39¢; 36 tablets, 98¢; 100 tablets, $1.98.

All too often, symptoms associated with colds can be the first signs of more serious illness. If you have severe coughing, marked fever, or chest pains—stay in bed and call your doctor.

UNION PHARMACEUTICAL COMPANY, INC., Montclair, N. J.

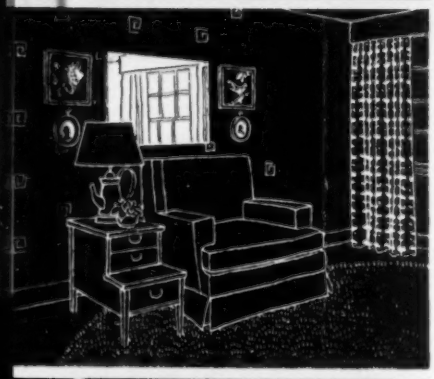
INSIST ON inhiston AT FIRST SIGN OF A COLD

There's magic in mirrors!

If you use mirrors correctly, they'll do much to make a room more cheerful and more attractive. In the right places, they'll increase the apparent size of a room, increase the lightness of a too-dark room. If well chosen, they'll solve many decorating problems

DO

← Do hang mirrors so they extend the full length of a sofa if you want beauty and service from them. This way, they reflect light from nearby lamps and permit reading anywhere on sofa

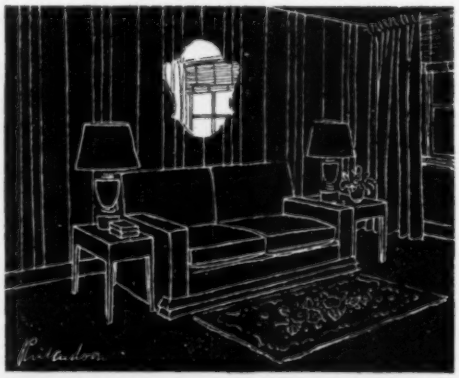


← Do use small mirror by flanking it with pictures on either side. This prevents mirror from seeming too small on large expanse of wall area or above a large grouping of furniture

← Do add a long mirror between two adjoining windows to reflect all the incoming light; a cornice is needed over top to tie the two together as a complete unit. ***More on page 139***

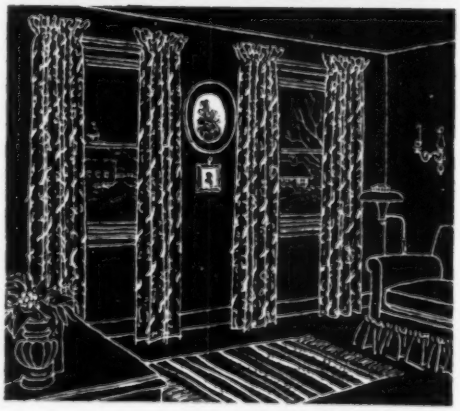
DON'T

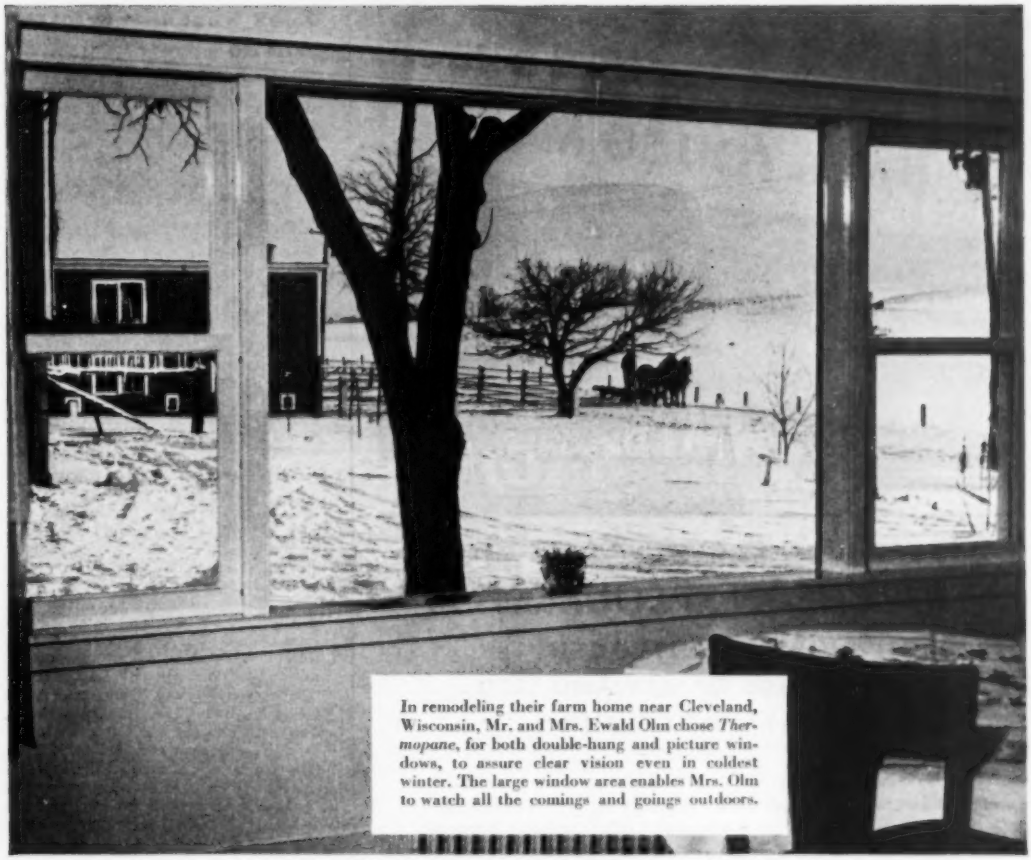
Don't place an oddly shaped or very small mirror above a large piece of furniture. It not only looks out of proportion, but is not large enough to reflect enough light to be useful →



Don't hang a small mirror just any place on a wall and expect it to look well. It must be related to the furniture. Center it above an arrangement, or use it as part of large picture grouping →

Don't lose precious light from two adjoining windows by draping each separately. This not only makes room look cluttered, but makes it appear much smaller. Treat windows as one large unit →





In remodeling their farm home near Cleveland, Wisconsin, Mr. and Mrs. Ewald Olm chose *Thermopane*, for both double-hung and picture windows, to assure clear vision even in coldest winter. The large window area enables Mrs. Olm to watch all the comings and goings outdoors.

Don't let frost shut you in

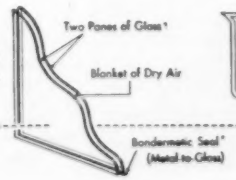
*Thermopane** insulating glass in your view-framing windows puts winter on clear display. Under normal humidity conditions, steam and frost don't block your vision and make you feel shut in.

Thermopane has a blanket of dry air sealed between its two panes. This keeps the room-side surface warmer in winter, so moisture isn't drawn from the air to collect on the glass. And—you can work or sit right next to *Thermopane* windows without feeling chilly.

With *Thermopane* you save fuel, too, because the insulating air space cuts heat loss through glass. And you never have to struggle with storm sash. *Thermopane* stays in all year—actually helps keep your rooms cooler in summer. It's the easy way to insulate all the windows in your home.

For building economy, *Thermopane* is made in over 80 standard sizes, available through glass distributors and building supply dealers. For full details, write for our *Thermopane* book. *®

FOR BETTER VISION SPECIFY THERMOPANE
MADE WITH POLISHED PLATE GLASS



Thermopane

MADE ONLY BY LIBBEY·OWENS·FORD GLASS COMPANY
3435 Nicholas Building, Toledo 3, Ohio

Inoculated Legume Crops are

YOUR CHEAPEST SOURCE FOR

- SOIL-BUILDING NITROGEN
- BIGGER YIELDS OF HAY AND SEED
- MORE MEAT—MORE MILK

There is no easier, cheaper way to take the guesswork out of growing legumes than the simple habit of inoculating with NITRAGIN. For just a few cents you can help rebuild soils and boost yields at the same time. Get bigger returns from better yields of clovers, alfalfa and other legumes . . . increase your profits from meat and milk. Don't take chances—always inoculate with NITRAGIN, the proved and preferred inoculant in the orange-colored can.

Get Full Information *FREE* . . .
Find Out How to Grow Better Legumes

Valuable free booklet tells timely facts on growing better soybeans, alfalfa, clovers, etc., for cash, feed and soil building. Write today.

THE NITRAGIN COMPANY, INC.
3709 NORTH BOOTH ST. • MILWAUKEE, WIS.

Advertising in Successful Farming is carried under the guarantee on the index page.

A home planning service tailored to farm living is being offered by one store near you. See page 62.

Look what sweet clover will do

[*From page 43*]

desirable to plan to use it regularly, either alone or in mixture. Second-year sweet clover is coarse, sappy, hard to cure, and gets woody quickly. It should be cut before bloom to get good-quality hay, and high (8 to 20 inches) if it is not to be killed.

A big drawback to sweet clover hay or silage is that it is often poisonous. If the hay heats during curing, coumarin (the compound which gives sweet clover its distinctive odor and flavor) may be changed to dicoumarin. This destroys the clotting power of the blood. Animals, cattle especially, fed on such damaged sweet clover hay, may bleed to death from scratches or dehorning. With this hazard, and so many other legumes available, there is little reason to depend regularly on second-year sweet clover for hay. It's worth more as a soil builder.

Sweet clover makes good silage, but you risk the same poisoning hazard. It should be wilted before ensiling, and you should use a preservative.

Clearly, not everyone should grow sweet clover. The strictly livestock farm can usually use alfalfa to better advantage. Alfalfa will grow anywhere that sweet clover will, except on tight, poorly drained soils or on actual alkali soils.

Now, you may ask, "Where can sweet clover be grown?" The answer is: almost anywhere that the soil contains enough lime. No crop, not even alfalfa, is more sensitive to lack of lime in the soil. Always lime a soil that has a lower reaction than pH 6.0 if sweet clover is to be sown. In Ohio, the yield at pH 7.0 has been more than double the yield at pH 6.0.

Sweet clover will endure "tight" soils and poor drainage as well as alsike. For example, it can be grown, after heavy liming, on the "clay pan" soils of Missouri and Iowa, east to southern Ohio. It is the best crop known to reclaim subsoils bared by severe erosion, IF they contain enough lime.

Sweet clover needs fertility, too. Fertilizing a "soil-building" crop sounds silly to some, but no plant will add phosphate or potash to the soil.

As a catch crop, sweet clover is much better than other legumes. The reason lies in its habit of growth. Think of sweet clover as a *biennial root crop*, such as beets and carrots. Alfalfa and red clover live for several years, but bloom in the year they are sown if they are allowed to.

Sweet clover never blooms in the seeding year. Like beets, carrots, and other roots, it makes a good top growth, then stores materials in the roots until freezing weather. From September 25 to November, the weight of its roots doubles, while the top growth loses a little.

So, in the fall of the seeding year, sweet clover has about double the roots that alfalfa has and nearly three times the roots of red clover.

Because sweet clover roots also contain more nitrogen per pound than alfalfa or red clover, sweet clover is in a class by itself for plowing under in the spring after seeding. We have had as much as 175 pounds of nitrogen per acre in April, from sweet clover sown in oats the spring before. It has averaged nearly 100 pounds. This is as much nitrogen as

is contained in 500 pounds of sulfate of ammonia.

If we let sweet clover grow for the second year, its advantage over red clover and alfalfa, in organic matter and nitrogen returned to the soil, largely disappears. However, it has a remarkable effect on soil tilth, not usually equaled in the same period by the other two.

Now, when should you plow under your sweet clover for soil improvement? Many persons think sweet clover must be allowed to make as much growth as possible in the second year before plowing for corn. But this is a mistake.

The early growth of second-year sweet clover merely takes materials from the roots to the tops. It is May before much

> **He maketh me to lie down in green pastures; He leadeth me beside the still waters.**
> —*Psalms 23:2*

new nitrogen is fixed, and by then it is time to plant corn. The sweet clover growth dries the soil and the heavy top growth may be unfavorable for corn, if a dry season follows.

In a time-of-plowing test in northwestern Ohio, on heavy soils where fall plowing is desirable, plowing sweet clover in November of the seeding year was better than any spring plowing. But if you plow it from August of the seeding year to any time before growth is well started the following spring, it won't be killed. It will grow and become a weed in the following crop. This is not so bad in corn, as the regular cultivation will take care of it. But in wheat, oats, sugar beets, soybeans, it may be a very serious weed.

A sugar beet man tells me he treats sweet clover with 2,4-D before plowing, then uses the field for sugar beets. He has no difficulty from growth of the sweet clover. Sweet clover is very susceptible to 2,4-D, and this treatment—probably $\frac{1}{4}$ to $\frac{1}{2}$ pound 2,4-D acid per acre—should permit plowing under sweet clover before crops where it could not otherwise be used.

Because sweet clover is a highly specialized legume, good management pays off. It must be used in the right way. Many important points in your success with sweet clover rest on the fact that it never recovers from the crown after cutting, as red clover and alfalfa do. It makes new growth, if any, from buds along the stem.

In the seeding year, this means sweet clover *should not be clipped* after the wheat or oats is harvested.

When sweet clover is mowed after September 1, it makes no more top growth that season. The roots go through the winter the same size they were when cut. They may be so small that they heave easily. We have had 50 to 75 percent winterkilling by heaving of sweet clover cut September 15. The worst period to cut sweet clover is September 1 to 15. After this, the later it is cut, the greater the root growth, and the greater the value for soil improvement or pasture.

Even the height of combining is important. Sweet clover cut at three heights in July, nothing done after that, produced 1,100, 1,800 and 2,800 pounds of air-dry roots per acre in November—following 2-, 8-, and 14-inch heights of

[*Turn to page 122*

Like a thief in the night
EROSION
has robbed our soils of Vital Trace Minerals

SLOWLY, but nevertheless surely, wind, sheet, and gully erosion has sapped our farm land. In the process we have lost much of the essential iron, copper, cobalt, manganese, and iodine. As a result, our crops are deficient — our livestock aren't getting the trace minerals they need for healthy, profitable gains. Even in the better areas, few animals get enough.

The end result is: most livestock are not as thrifty as they might be. They cannot make the best use of their feed. Their young lack the vigor that Nature intended. And you are not making the money or getting the profits that you should.

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DAIRY COWS GIVE MORE MILK. They're easier and more certain to breed. They have stronger calves.

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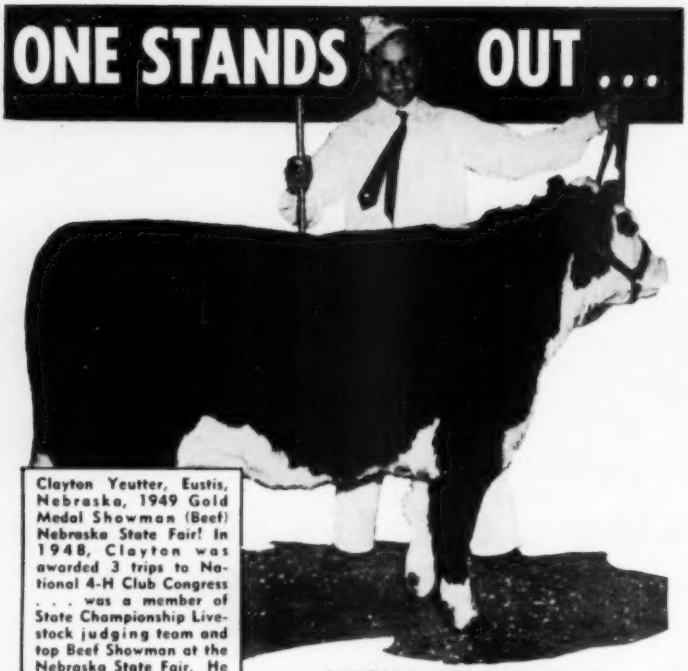
ONE STANDS OUT . . .



Clayton Yeutter, Eustis, Nebraska, 1949 Gold Medal Showman (Beef) Nebraska State Fair! In 1948, Clayton was awarded 3 trips to National 4-H Club Congress . . . was a member of State Championship Livestock judging team and top Beef Showman at the Nebraska State Fair. He was one of 4 delegates from Nebraska to 1949 4-H Club Camp, Washington, D. C. Since 1944, Clayton has been winning with his livestock entries in County, State Fair and Ak-Sar-Ben Shows in Nebraska!

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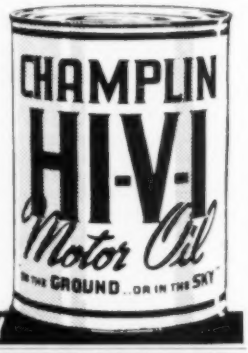

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24 FRONT ST. • CLAREMONT, MINN.

Look what sweet clover will do

[*From page 121*]

cutting, respectively. Uncut sweet clover (the oats left unharvested) produced 3,600 pounds of roots in November. It is important to set the combine or binder as high as possible when harvesting grain above sweet clover.

Sweet clover should always be sown in small grain. Practically no farm is so free of weeds that, if sweet clover is sown alone, there will not be a heavy growth of weeds with it. Because these weeds can't be controlled by clipping without severe, almost fatal, injury to the sweet clover, it is far better to sow in small grain. This grain dies in midsummer in the Cornbelt—weeds seldom do!

What kind of sweet clover should you sow? There are two common biennial varieties, white and yellow. These are distinct species—they do not intercross. Most folks recommend the white, but the yellow has gained ground rapidly and is worth more attention than it has received. The white will produce more hay. It will provide more and later pasture than the yellow. So, for hay and pasture, the white is the best. But the yellow puts more material in the roots than the white, so for soil improvement, the two are equal. The yellow will establish much more certainly in dry seedbeds, so is best for any summer seeding, and for seedings in dry springs and dry climates generally. It is 10 days to 2 weeks earlier than common white.

In general, therefore, white sweet clover should be used whenever it is desired to cut hay in the seeding year or for any pasture use. Either white or yellow is used for soil improvement as a catch crop in a two-year corn-small grain rotation. Because yellow sweet clover is better in dry conditions, as we've said, it is generally better for seeding for soil improvement only.

Three important diseases affect sweet clover—root rot, black stem, and mosaic. No treatment is known for any of them, and breeding for resistant varieties is the only known hope for control.

A new threat to sweet clover is the sweet clover weevil. It is a tiny, gray snout-beetle, about one-fifth of an inch long. It feeds almost exclusively on sweet clover. The recent drastic drop in sweet clover acreage is due largely to this insect. It eats characteristic notches in the edges of the leaves. This leaf damage is easier to find than are the beetles! They drop to the ground when disturbed, and hide under loose trash at the surface.

Their feeding on second-year sweet clover is not usually serious, but they may destroy stands of newly sown sweet clover *as soon as it is up*.

No problem in sweet clover culture today is more important than working out successful methods for the control of sweet clover weevil. DDT will control sweet clover weevils if it reaches them. But economical methods and times of application have yet to be completely worked out. Until we can run more tests, you'll have to experiment a bit yourself. All we can say is keep a close watch, and dust or spray by your own judgment.

That may sound a bit risky. But take another look at the photographs on page 42. Sweet clover is worth working for! END

What Life Insurance brought you in 1949

A Report on how an important Main Street institution benefits all America

MORE MONEY *for payment to you and your neighbors*

Every day in 1949, an average of $4.1 million in death benefits was paid out to widows, children and other beneficiaries of life insurance policyholders. A testimony to American thrift and foresight!

To living policyholders themselves, more than $5.5 million was paid daily. Half of all life insurance benefits paid in 1949 was for such plans as college for the youngsters, retirement, travel, financial emergency.

As more men and women used life insurance to protect their families, or for retirement and other "living benefits," the average life insurance protection among insured families rose to more than $6000.

More money AT WORK *for you on Main Street*

And as more folks used life insurance, more life insurance assets went to work in 1949! This was part of the $59.3 billion behind your policies, invested on Main Street until needed . . . helping *all* America!

This money helps build the community, extend electricity, expand factories, and helps to make jobs in other ways. To do this, life insurance companies put $3.8 billion more money to work in 1949 alone!

Nearly half these "working dollars" went for better housing. Helped folks buy or build homes, improve farms. The average of all life insurance company home mortgage loans amounted to only $5000!

More folks making their own SECURITY . . .

By their own thrift and initiative . . . and *by their own free will* . . . 80 million men and women are using life insurance as a means of making their *own* security for the future. Altogether in 1949, their policies added up to 213 billion dollars of protection.

And since it helps people do so much for themselves, life insurance is used by more and more people every year.

That's why today the business has grown to 584 individual life insurance companies. These companies compete actively . . . in the forward-looking American way . . . to America's growing needs for *self-made* security.

As new families come along in 1950, many will buy life insurance for the first time. Other folks will increase the life insurance they have. As a result, the new year will see life insurance helping even more people to make their own security . . . *on their own.*

Yes, life insurance is a growing service! It enables millions of folks to take care of their own, in the self-reliant American way.

Helping folks make the most of life insurance are America's 150,000 trained life insurance agents!

Life Insurance is an open book

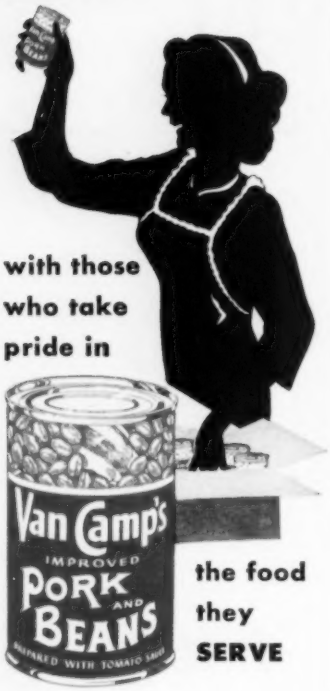
Here is the kind of security 80 million Americans made for themselves in 1949 through life insurance:

- 4 out of 5 families were protected by one or more life insurance policies.
- The policies they held totalled $213 billion of insurance.
- Guaranteeing this protection were assets of $59.3 billion . . . invested, earning interest for the policyholders, aiding America's growth.
- $1.5 billion was paid out in death benefits.
- $2 billion—more than half of *all* payments—was paid to policyholders *during their lifetime.*

Directly and indirectly, life insurance serves every American, every day of the year. The Institute of Life Insurance—60 E. 42nd St., N. Y. 17, N. Y.

LIFE INSURANCE—Helping American families to help themselves

Van Camp's
— THE FAVORITE



Nowhere is food more appreciated or enjoyed than on the farms, for folks who grow food, know food. So we have always taken it as a special compliment that among farm folks, **Van Camp's** is the favorite.

Of course **Van Camp's** is the oldest . . . the *original* canned pork and beans. No one else knows how to pack beans with more skill and experience. No one else prepares them by the exclusive flavor-penetration method that imparts to each and every whole, plump bean its brimming share of the secret savory sauce . . . the sweet, tender pork.

As our farm friends well know, **Van Camp's** is the one brand of beans that they can serve with pride . . . with the satisfaction that they are giving their families as "homey" a dish as they could prepare . . . and one that saves them time and effort and money.

IT'S Van Camp's FOR *flavor* THROUGH and THROUGH

How to heat a home without fuel

By Harold Beaty

How would you like to heat your farm home by using a "furnace" that heats without fire, soot, smoke, or ashes? Mr. and Mrs. Alvin Howe, Hinton, Iowa, do just that and are sold on the idea. Their home is heated with a heat pump.

Vincent Buss, manager of the Plymouth Electric Cooperative Association, Le Mars, Iowa, sold the Howes on the idea of using the heat pump. An Indiana concern agreed to sell the pump to the Howes on a trial basis of satisfaction or money back. It was the company's first installation in Iowa and one of the first west of the Mississippi River.

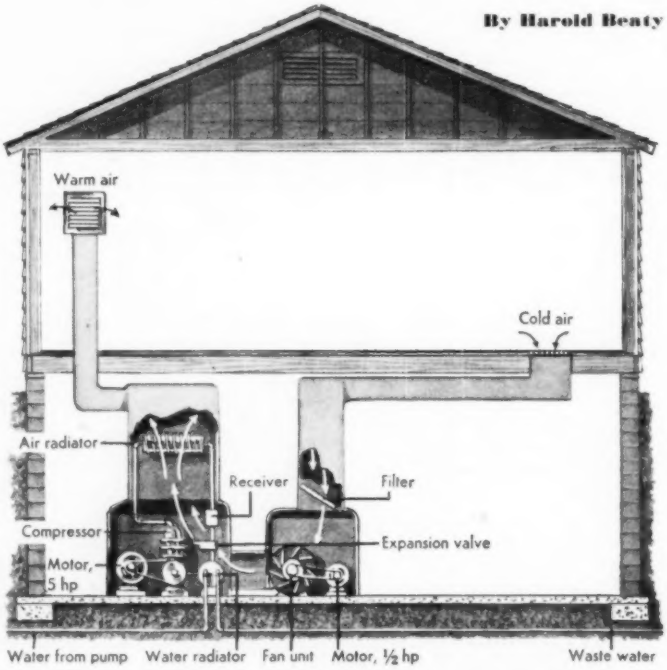
The Howes were told they would need a good supply of water—as much as 1,000 gallons of water per hour—because water is the source of heat for the pump.

As a matter of fact, many farm people have a small-scale heat pump in their homes now. The refrigerator gives off heat as it cools the stored food. Heat is taken out of meat, vegetables, milk, and other foods. By touching the coil at the bottom or back of the refrigerator, you will find that it is warmer than the air around it. It's cooled by air circulating over the coils, which puts heat into the home.

The heat pump takes heat out of the well water just as the refrigerator takes heat out of its contents. Then this heat is transferred to a coil or air radiator in the furnace and is used to heat the home. It is easy to see why the Howes need a large water supply. Ground water temperature is usually 52 degrees, so the amount of heat contained in a gallon of water isn't great.

The Howe home is a 7-room, story-and-a-half structure with full basement. The walls and ceiling are insulated with 2" insulating material. The doors and windows are weatherstripped and provided with storm doors and storm sash.

The heating system is a typical forced-air system except for the method of securing the heat. Metal warm air ducts lead into each room of the house from the furnace in the basement. The living room and dining room have two ducts each to give a better distribution of warm air and also to provide suitable outlets for cold air when the heating system is converted to a summer cooling system.



The drawing above shows the complete heating plant in the Howe home. The arrows indicate the direction of air flow through the heat pump. Water pump is outside the house

This is the Alvin Howe home which was heated without fuel by using heat pump

After the warm air has circulated through the house, it returns as cold air to the furnace, where it is heated and again circulated by means of a fan. A spun-glass filter removes dust and dirt from the air.

The heat pump uses three electric motors. A single phase, 5-hp electric motor runs the compressor. Also located in the compartment with the compressor is the water radiator, valves, pipes, and other devices which make up the refrigeration machine. The air radiator is located above the compressor. A ½-hp electric motor, fan, and filter for the forced-air system is located in a separate compartment, but is connected to the compressor compartment by an air shaft. (See illustration.)

A 1-hp electric motor operates the jet pump for the water system and is located in a pit near the wells and outside the farm home.

The refrigeration unit takes heat from the well water. Freon gas expands in the coils inside the water radiator and, as the gas expands, it takes up heat from the water. The compressor draws the expanded gas from the coils in the water radiator, compresses the gas, further heats it, and forces it into the air radiator.

The hot gas heats the air radiator. Cold air is blown through the compartment containing the compressor. The cold air is heated by the hot-air radiator and passes on through the warm-air ducts to heat the house.

The refrigeration gas in the air radiator is cooled by the cooler air being drawn from the house through the cool-air return registers. The gas then condenses into liquid. The liquid gas runs into a receiving chamber, then through an expansion valve where it turns into gas vapor and again goes into the water radiator to start the heating cycle over again.

The Howes bored three 36" shallow wells in the farmyard south of their home. The jet pump, with electric motor, pumps water at the rate of 1,080 gallons per hour whenever the heat pump is in use. The water pump starts when the heat pump goes into operation.

An effort was made to use the water over again by running it back into the well. This idea was soon given up because the temperature of the well water became steadily lower. The waste water was then discharged outside the house and was carried off through a small ditch. The Howes plan to use as much of the waste water as they need for livestock and run the balance into a field draintile.

[*Turn to page 126*

Inside, outside, all around the farm . . .

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EXTRA LONG WEAR WITH COMFORT TO SPARE

CEDAR-CREST SHOE COMPANY
DIV. OF GENERAL SHOE CORPORATION
NASHVILLE, TENNESSEE

How to heat a home without fuel

[*From page 125*]

A record was kept of the amount of electricity used to run the heat pump. Electric meters on the water pump, the motor for the forced-air fan, and the 5-hp motor for the refrigerator were read daily, beginning January 1, 1949, until March 1, 1949. Readings for the period of November 30, 1948, to April 27, 1949, show that 10,001 kilowatt-hours were used to operate the heat pump.

The Howes pay 1.8 cents per kwh for electricity to operate the heating unit. The average daily heating cost for the 148-day period was approximately $1.20 per day, or about $180 for the period.

The winter of 1948-49 in the Sioux City area was about 10 percent colder than normal, according to the weather bureau figures. With the U.S.D.A. Sioux City weather bureau figures as a reference, the annual normal heating costs for the Howe home are estimated to be $225.

The assumed cost of heating Alvin Howe's home by stoker coal or fuel oil would be lower than heating with the heat pump at present fuel prices. Bottled gas heating would cost about the same as the heat pump. These costs do not include the cost of electricity to operate the stoker or the oil burner or electric motor for the forced-air system.

The convenience and clean heat provided by the heat pump offsets its slightly higher cost, according to the Howes. And, of course, during the hot summer days of July and August, the heat pump becomes a cooling system. In fact, Mrs. Howe had to be careful or the house would get too cool.

The two agencies responsible for the heat pump studies were the Division of Farm Electrification of the Bureau of Plant Industry, Soils, and Agricultural Engineering Department of the U.S.D.A., and Iowa State College.

The Howes are hoping electricity will become cheaper, but in the meantime they are enjoying the cleanest hot-air heating system possible. **END**

The table shows the amount of water used during January and February, 1949. On cold days when the thermometer registered 17 or 18 degrees below zero, 17,000 to 18,000 gallons of water were needed.

Gallons of water used by heat pump				
Month	**Month total**	**Daily average**	**Maximum per day**	**Minimum per day**
January, 1949	406,070	13,099	17,300	5,530
February, 1949	363,330	12,976	16,710	9,010

Tables below show how the costs for operating the water pump, the forced-air fan, and the refrigerator compare.

Heating costs for January and February							
Period	**Total cost including water pumping**	**Cost of operating refrigerator, water pump, and fan**					
		Refrigerator	**Percent of total cost**	**Water pump**	**Percent of total cost**	**Fan**	**Percent of total cost**
Jan., 1949	$50.40	$38.66	76.8	$8.83	17.6	$2.86	5.6
Feb., 1949	43.88	33.37	76.0	8.12	18.5	2.39	5.5

Estimated annual seasonal operating costs for heat pump				
Period	**Total cost including water pumping**	**Cost of refrigerator**	**Cost of water pump**	**Cost of fan**
Normal heating season	$212.00	$162.18	$38.16	$11.66

Do you have a question?

Through our Farm and Home Service Bureau, *Successful Farming* offers you individual, personal-letter help with your individual problems.

This service is offered to you without any charge whatever.

In order that we may form an accurate picture of your questions, outline all details clearly when you write.

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ANAHIST TRADE MARK *is the only drug proved CLINICALLY EFFECTIVE for Colds in the rigidly controlled tests described in the READER'S DIGEST*

ANAHIST CAN STOP COLD SYMPTOMS IN A SINGLE DAY!

"HERE'S THE BEST HEALTH NEWS OF THE YEAR," SAYS READER'S DIGEST in describing the revolutionary medical research which resulted in the CLINICALLY-PROVED antihistamine for colds—ANAHIST!

Worth noting is the fact that all antihistamines are *not* alike. They vary greatly in performance and effectiveness. ANAHIST is singled out as the *new miracle drug for colds* because of its amazingly successful record in actual clinical tests.

With ANAHIST, the great majority of people can now avoid most early cold misery: sneezing, coughing, watering eyes, running nose . . . thus avoid bad colds and their complications all year 'round . . . also avoid passing colds on to others!

ANAHIST's 25 mg. antihistamine tablets provide the CLINICALLY-PROVED EFFECTIVE dosage for colds now available without a prescription.

Prompt, efficient relief for hay fever, too. Available at your drugstore in the large family-size bottle of 40 tablets—also bottles of 15 . . . ANAHIST—new miracle drug discovery—is the exclusive trademark of ANAHIST CO., INC., Yonkers 2, New York.

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ANAHIST TRADE MARK

Q. *Is* ANAHIST *SAFE?*

A. Yes. ANAHIST is SAFE for both adults and children when taken as directed on package. Children over 6 may be given the same dosage as adults. For children under 6, consult your physician for proper dosage.

Q. *Are all antihistamines equally effective?*

A. No. Antihistamines vary greatly in performance. ANAHIST is the CLINICALLY-PROVED EFFECTIVE antihistamine you can buy *with confidence* for family use.

Q. *If a cold has already run three or four days, will the use of* ANAHIST *give relief?*

A. This drug, which has so much value when taken upon exposure to colds or during the early phases of a cold, gradually loses its effectiveness if its administration is delayed. However, there is clinical evidence that, in any phase of the common cold, ANAHIST may reduce the complications and the severity, even after there has been invasion of the mucous membrane by secondary invaders.

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Take ANAHIST *immediately* on exposure or in the first 24 hours . . . then continue with one tablet after each meal and before retiring . . . 72 hours for best results.

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Families everywhere say Goodbye to Colds with

ANAHIST TRADE MARK

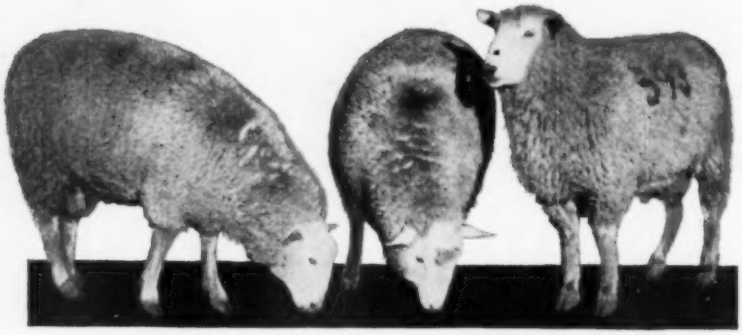
R. Hesselgrave family, 2076 Palace Ave., St. Paul, Minn. Mrs. Hesselgrave writes: "I felt a cold coming—started taking ANAHIST—next morning, no cold! So, I'm giving ANAHIST to my family, too."

J. J. Roach family, 84 Fremont Street, Hartford, Conn. Mrs. Roach writes: "I woke up sneezing—started ANAHIST—after 4 tablets, cold was gone. From now on, it's ANAHIST for the whole family!"

R. H. Michael family, 1508 Riverside Heights, Verona, Pittsburgh, Pa. Mr. Michael writes: "I can't afford colds—and ANAHIST's the answer!" Mrs. Michael adds: "With ANAHIST, we 'nip' colds in the bud!"

Something new in SHEEP

Improved lines are likely to upset time-honored ideas, but they promise superior results and also more profitable sheep for the farm



100 This Minnesota line has clean face, legs. Shears well. Good mothers, big lamb crops. Produces nice carcass

By Walter J. Hunt

Something revolutionary is happening to our sheep! We are getting new breeds. They may serve us better than the ones we have by producing more profitable lambs for the commercial trade. They promise us improved fleeces, greater fertility, and higher lambing percentages; more vigor and livability in lambs; and faster, cheaper gains.

Some of the troublesome faults sheepmen have had to tolerate, such as wool blindness, have been eliminated. This should make it easier to take care of a flock.

Sounds like big talk. It's justified, though, by what already has occurred in a project (financed wholly by state funds) at the Minnesota Experiment Station.

The station has several entirely new breeds in the making. They were established by crossing and selecting, practically the same way that the new breeds of hogs, Minnesota No. 1 and Minnesota No. 2, were originated at the same institution.

Now sheep are being inbred and selected to purify them, or fix their characters, just as the hogs were inbred when they were being developed. In addition to the three new ones, the station has developed improved lines of older breeds, as it did with inbred Poland Chinas in its hog project.

The sheep work is paralleling the hog work as closely as possible in nearly every phase. The time element is an important exception. It took seven years to establish and purify a new line of hogs, but it should take twice as long with sheep because the turnover, in numbers, is smaller.

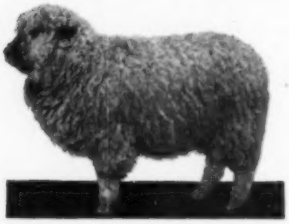
There are several purposes behind the whole thing. One is to provide farmers with better-performing lines, or breeds, of sheep. Another is to find out and demonstrate the possibility for advantage in crossing and crisscrossing the new lines, both among themselves and on older breeds. Animals that make better chops and legs of lamb are wanted, too.

For that sort of program, superior kinds of sheep must be used whose genetic backgrounds are different. The new ones at the station look as though they will fit that requirement to a T.

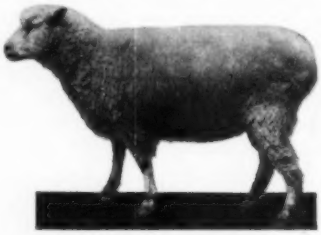
In Western states the Columbia and the Targhee have been developed, and they were introduced a few years ago for range use. As for the breeds more or less suited only for our Cornbelt states, we haven't had any really important improvements, from a practical viewpoint, since the breeds first came to us from Europe.

However, don't take your pen in hand as soon as you read this and write the Minnesota station, asking to buy one of its new rams! Your chances of getting one at the present time are slim because the station's flocks aren't overly large and only a few sheep can be sold. Besides, some of the lines aren't ready to go onto the market at all yet.

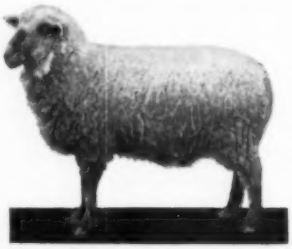
One of the new lines, called Minnesota 100, perhaps has made more progress than any of the others. At any rate, it has caused more comment up to this time. The Minnesota 100 was produced by crossing two crosses. Rams from [*Turn to page 130*



101 The Minnesota 101 line produces an excellent carcass, quick growth, and uniform fleece. A good farm type



102 While not so far along as the two above, this big line makes a good market lamb and shears heavy fleece



103 This line is a living example that proper inbreeding can be constructive, not harmful. Vigorous, medium-sized

on the *NEW* PURINA HOG PROGRAM...

IMPROVED PURINA SOW & PIG CHOW, fed with grain on the New Purina Hog Program, helps sows wean up to ⅓ more husky pigs. For Sow & Pig Chow has what it takes to build big litters and keep sows' udders full of rich milk—gets pigs off to the right start.

MARKET 200-225 PURINA HOGS AT ABOUT 5½ MONTHS on the New Purina Hog Program (based on Purina Farm tests). Have your hogs ready to ship in time to take advantage of the high early market. Save about two weeks of labor, too.

CUT YOUR FEED BILL! The New Purina Hog Program produces pork at a feed cost saving up to $25 per sow and litter as compared with the former Purina Program (based on Purina Farm tests, using average October prices for corn and Purina).

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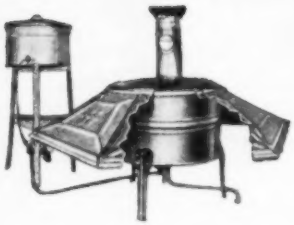

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No work – no worry – completely automatic. Two powerful, fully enclosed heating elements. Balanced heat distribution with controlled ventilation eliminates moisture, keeps litter dry. Fully insulated. Adjustable legs allow extra head room as chicks grow. Economical operation (usually less than 1c per chick). Sizes for 500, 300, 100 chicks.

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Something new in sheep

[*From page 128*]

Cheviot-Rambouillet were crossed on ewes of Leicester-Rambouillet. Lambs from this combination were selected carefully, and then inbreeding was begun to stabilize the line at a high level of performance. The result is an alert, perky, really attractive sheep, with white face and legs without wool on them. Such a sheep will never be wool blind. They have sturdy feet and legs and they can move quickly and with ease if occasion calls for it—when dogs (or bears in the woods country) get into the pasture.

In 1948 at the North Central substation, home of this new line, the ewe flock of Minnesota No. 100's averaged 9.8 pounds of wool. The ewes lambed 144 percent, compared with 110 percent or less for the usual Midwest flock of grade sheep. A 129-percent lamb crop was raised.

The lambs averaged 74 pounds when 140 days old, having lived on milk and grass except for the last two weeks of the period, when they got a little grain. Last year the ewe flock sheared 9.6 pounds. The lamb crop totaled 168 percent, and on June 15 a 150-percent lamb crop was being raised.

The wool of Minnesota 100's is from ¼ to ⅜ blood, with long staple, good luster, and low shrink. While no carcass figures have been obtained, the 100's produce a good killing sheep, with a nice carcass which isn't excessively fat.

The ewes have shown that they are excellent mothers. They milk heavily. They have performed well without extra care. Practically no assistance has been given any of the ewes at lambing time.

No grain is fed from breeding time to lambing, and none is given after the sheep go to pasture in the spring. The entire Minnesota 100 flock is wintered on alfalfa hay and corn silage.

Since the 100 line first was established in 1942, only 50 rams have been sold for breeding. Of that number, 20 were sold last year to northeastern Minnesota farmers, who crossed them on their grade Shropshire ewes. The reaction of these farmers has been favorable. They like the lambs from this cross, because they are more vigorous, faster-growing, and 20 percent bigger than lambs they raised previously.

Word has gone around that Minnesota 100's are especially suited to the cutover section of the state. This seems to be true enough, but surely that fact should be no reason for assuming (as some people have) that these sheep should be confined to that one area. It is possible that when they are tried in other environments they may do as well, or better.

The Minnesota 101, another new line, is quite a different sheep, but it certainly has a good chance for usefulness. The origin of this sheep may have special appeal to many people in the Cornbelt area because it involves breeds they know particularly well. Minnesota 101 was produced by crossing Oxfords and Shropshires and using the rams that were obtained on ewes from a cross of Oxfords and Hampshires.

This should be a farmer's sheep, and it is. The Oxford has left a desirable imprint on the line, but his less-attractive characters have been omitted. Number

101 is a sheep of medium size. This line is providing active, vigorous animals, whose lambs survive very well. These are characters that heretofore have been lacking in many of our sheep.

Number 101 is strong and broad in the loin. With a good fleece, fast growth, and adequate meat quality, this line shows promise of becoming an outstanding, general farm breed.

Minnesota 101 has a mass of wool on its head which, no doubt, will make many people dislike it. Animal geneticists at the station see no chance of ending this trait without introducing a violent outcross into the line. Such an action has drawbacks because any outcross that would bring about the result very likely would destroy also the line's desirable characters. Or at least it would dilute them.

A third new line, the Minnesota 102, is not as far along as either Number 100 or Number 101. The 102 line has not settled down, as the other two have, to the uniformity essential to a new breed. While you can't today put your finger exactly on its conformation, this sheep is going to be larger than the Shropshire and more open in the face. Its wool has a longer staple than Shropshire wool, although fleeces of the two are of about the same fineness. The 102's shear, on the average, almost 4 pounds per head heavier than Shrops.

Here is the basis of the breeding in Minnesota 102, which should explain its size and some of its other characters. The ewes are from a cross of Border Leicester-Shropshire used with rams obtained by crossing Targhee and Columbia. This may be the answer for those who would like a big sheep that, even with its size, yields quite a nice sort of fat market lamb.

A clean-faced, clean-legged line of purebred Hampshires at the Minnesota station is important as a source of foundation stock. So, a new line was selected out of the large Hampshire flock owned by Dr. H. C. Gardiner, the proprietor of Mt. Haggin Land & Livestock Company in Montana. Doctor Gardiner gave the original selections to the station in 1940.

Other promising material acquired by the station is the Minnesota No. 103, or North Star, breed of sheep, started in the early 1890's in southwestern Minnesota by the late W. W. Bell. He established his breed by crossing Lincoln ewes with Oxford rams and then mating the crossbred ewes with a Rambouillet ram. After that, no other blood was introduced into this developing breed.

Bell and his son selected especially for wool and animal vigor. They developed a smooth, straight-topped, fine-boned sheep of medium size which has a fleece of high quality—good half-blood wool.

"We expect to continue to test all of our different lines of sheep," said Dr. L. A. Winters, in charge of research in animal breeding at the Minnesota station, "so we will have complete data on wool, meat production and meat quality, fertility, vigor and hardiness, economy of gain, and rapidity of gain. We have done enough crossing already to show that it is a sound practice in sheep. We get more increase, as a benefit of hybrid vigor, than we do in crossing hogs. We want to know more about how these new lines turn out when crossed both among themselves and on older breeds of sheep." END

HELP YOURSELF TO POULTRY PROFITS with HUDSON FEEDERS and FOUNTAINS

Famous HUDSON Kleen-Ezy* Feeders

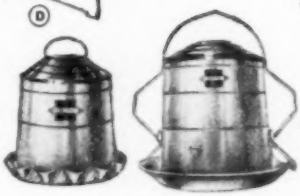
Sloping sides keep feed sliding to bottom without packing in corners. Permit chicks to get up close to feeder. Feed-saving lip reduces "billing out." Non-roost reels or grill.

A. HUDSON CHICK FEEDERS
One-piece heavy galvanized steel. No seam. 3 sizes: 18-in., 24-in., and 36-in.

B. HUDSON CHICK and GROWING FEEDER
End stands quickly adjustable. 2 sizes: 36-in., and 48-in.

C. HUDSON BROILER FEEDER
Wing nuts permit easy height adjustment for chicks 2-weeks old up to broiler weight. Choice of hinged grill (shown) or reel.

D. FEEDER WITH FOLD BACK STANDS
End stands quickly adjust height for small or large birds. 48-in. with reel; 60-in. with grill.



Sanitary Ezy-Fill* Chick Fountains

Individual cups shaped into bottom pan prevent chicks from getting into and fouling water. Cupped pan fills twice as often as ordinary pan; keeps water fresher. One gal. and two gal. sizes.

Ezy-Fill Growing and Flock Fountain

To fill, just remove pan, reverse handle and use as pail! Easy to clean, handy to fill and carry. Special saucer shape pan. Makes drinking easier; prevents wading. 3 and 5 gals.

HUDSON Double-Wall Fountains

Patented air-groove lets air enter fountain without gushing. Self closing valve. 3 and 5 gal. sizes.

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At last—a foolproof, fully automatic valve! When trough is full, weight of trough and water pulls valve shut. As water is drunk, valve automatically opens to let water flow. Valve shuts automatically when trough is removed. Holds four quarts—use one for 500 chicks.

Automatic valve with chain also sold separately.

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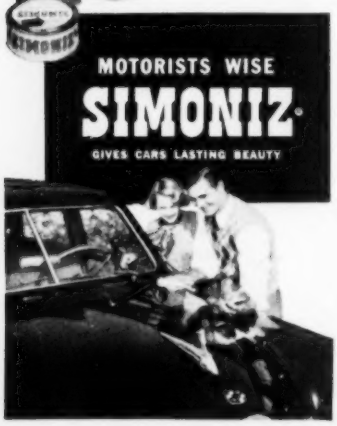
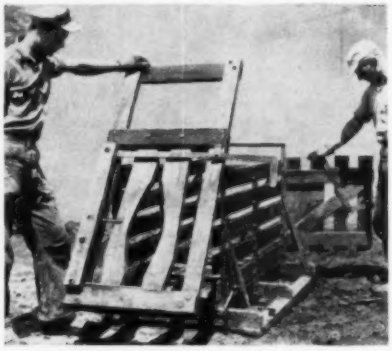


Successful

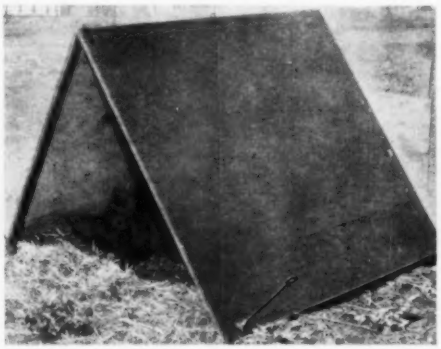
SHORT CUTS

Build them yourself, save time and dollars

Portable hayrack was built by Clarence Purfeerst, Rice County, Minnesota. The U-shaped hooks are used to hang the rack on pens



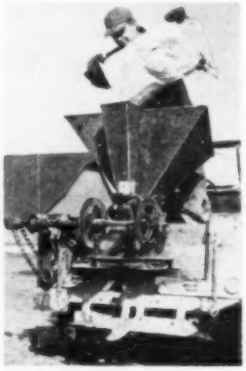
Hog-catching chute has an adjustable stanchion for holding pigs. Small pigs are released by opening the stanchion. For larger hogs, whole front swings up, say Fred and David Breuer of Mount Pleasant, Iowa



Farrowing shelters, made of painted plywood on frames, are lightweight and easy to use. C. and J. Clark, Louisa County, Iowa, built one by fastening hinges on top and anchoring it with endgate rods thrust through hole in each corner

Swinging door in central hog house lets hogs pass in and out on James Prickett farmyard, in Iowa

Windlass made of auto transmission does two jobs. It draws discs and other equipment up onto trailer, and then pulls the bed of trailer down to tow bar. For heavy loads, it is used in low gear for easier cranking



Fast seeder, run from sprocket on rear wheel of Jeep, seeded 20 acres of clover in 1½ hours for Tom Patchett of Edgar County, Illinois

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When you plow with a Massey-Harris Tractor you'll know the thrill of reserve power that carries you through a tough spot with ease . . . that keeps the job moving at top speed.

When you cultivate, you have the clear vision that makes good work easy. Yes! you can get right up close to the plants for clean cultivation without bobbing from side to side.

On a belt job, you'll see its wonderful smoothness under varying loads . . . how it will make short shift of your daily or weekly chore of feed grinding.

On *every* job, you'll have comfort that saves your arms and shoulders . . . simplicity of operation that helps maintain a fast pace all day long without fatigue.

You'll experience real fuel economy as you travel farther and do more work than you've done before with a given amount of fuel.

It's only through such an actual demonstration that you can appreciate fully the outstanding performance . . . the convenience . . . the comfort . . . the easy riding . . . the economy of operation — the advantages of all the many features that distinguish Massey-Harris Tractors.

Talk to your Massey-Harris Dealer. Tell him you want an on-the-farm demonstration. He'll be mighty glad to do this for you, as well as give a copy of the latest tractor catalog. Among the six basic models there's a size and type to fit your farm. For a catalog by mail, send in the coupon below.

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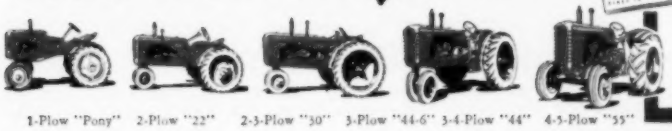

1-Plow "Pony" 2-Plow "22" 2-3-Plow "30" 3-Plow "44-6" 3-4-Plow "44" 4-5-Plow "55"

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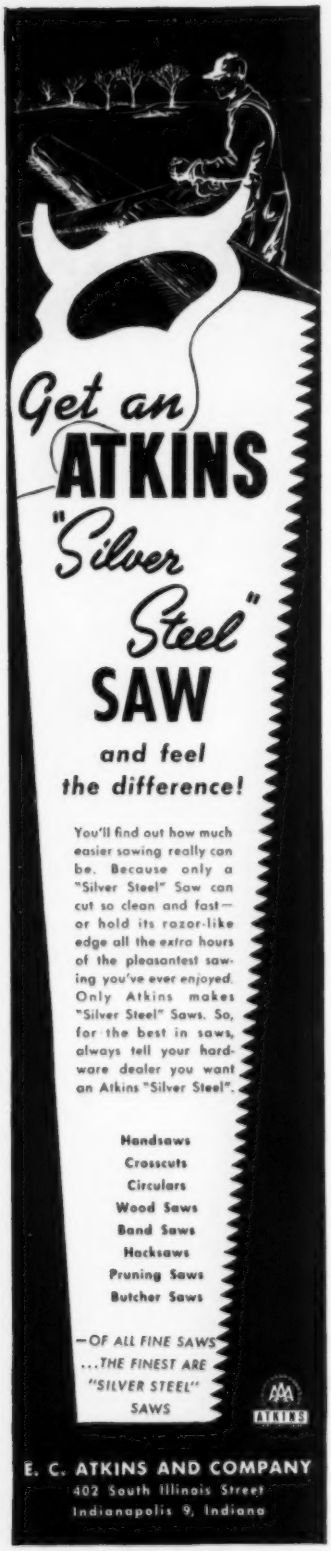
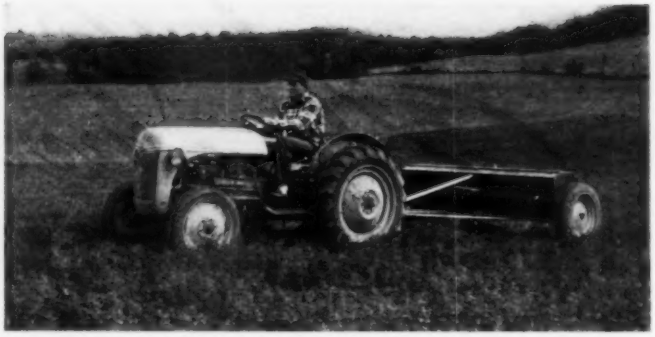




Fertilizer and improved seedings make Engst's hay and pasture equal to same acres in corn

He chose to go to grass

There'll be no corn next summer on this farm, but owner expects to hold production and income

By Ken McDaniel

Many Northeastern dairymen had to dip into their winter's feed supply to get their herds through last summer's drouth—but not Orville Engst, Onondaga County, New York. A rotation system of pasture feeding, plus improved seedings and fertilizers, made the difference.

Engst's feeding arrangement is doing more than just tiding him over during a bone-dry summer—it's taking 20 days a year off his barn-feeding period. That's nothing to sneeze at when you're milking 40 head of Holsteins. His pasture season now starts about the last week of April and continues until November 1, which is pretty good for a region at 43 degrees north latitude.

Thirteen pastures (eight for milk cows and five for dry ones) is one of the reasons why Engst got through the summer while most of the others were feeding up part of the ensilage they had expected to save for winter feed. These pastures average about 8½ acres in size. "Out of 180 tillable acres, that probably seems like a lot of pasture," chuckled Mr. Engst, "but a lot of it is clipped and put into the silo."

One of the fields was cut and put up for hay, then rotated as pasture the rest of the summer. In addition to this grassland, he has 15 acres of alfalfa for hay.

Orchard grass and Ladino are the combination which deserves most of the credit for making this pasture and feed system click. This pair produces almost as much feed as any combination he has tried, and they get along together better than some others. For example, Engst finds that Ladino and timothy, while providing good feed, don't do so well because the timothy tends to crowd out the Ladino.

Engst is sold on complete fertilizers for most of his pastures. Time was when he used nothing but superphosphate, but his pastures started to run out. Then, he was told to use a 0-20-20, but this brought no appreciable results.

Still later, he swung over to a complete fertilizer, using 300 pounds of 10-10-10

[*Turn to page 136*

This New York dairyman's rotation pasture carries 40 head of dairy cattle from late April to first of November. Faster-growing pastures also yield a crop of grass silage

(*Model F-3, 122-inch wheelbase Express illustrated*)

"My wife says we save about $16 a month with our new Ford Truck!"

says Louis P. Jensen of Troy, New York

"She keeps the budget in our family and knows just how much we're saving on gas, oil and upkeep since we changed to Ford. I agree—Ford Trucks certainly *do more per dollar!*"

"I picked Ford for power, but the money I'm saving has really convinced me it's the best all-around buy." (Loadomatic ignition saves gas; aluminum alloy pistons save oil; removable brake drums and engine-top setting save time and upkeep costs.)

"Never lets me down on any job! I use my Ford for every sort of work on my farm, in all kinds of weather." (To fit *your* job better—to save you money—a choice of over 175 Ford Truck models. From the 95-h.p. "Six" Pickup to the 145-h.p. "V-8" BIG JOB!)

"It's mighty good-looking . . . rides like a passenger car. The 'Million-Dollar' cab was good news to me, too!" (More good news for farmers is Ford's powerful, yet thrifty Six—the new 110-h.p. 254 cu. in. engine. It's engineered for heavy-duty farm use!)

"I knew they were Bonus-Built for extra strength, but I still can't get over how much less Ford Trucks cost to run!" (Find out yourself why Ford Trucks do more per dollar. Change to Ford like Louis Jensen did—see your Ford dealer this week!)

Ford Trucks Cost Less Because—

FORD TRUCKS LAST LONGER

Using latest registration data on 6,106,000 trucks, life insurance experts prove Ford Trucks last longer!

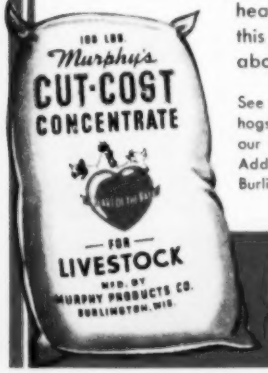
FEEDING PIGS INCOMPLETE RATIONS ROBS YOU OF PROFITS YOU OUGHT TO HAVE

If you short-change your pigs on feed you only cheat yourself. Even slight feeding shortages in pig rations can cause heavy losses in four ways:

- ♥High death rate
- ♥Slow-growing, sickly pigs
- ♥Too many runts
- ♥High feed costs

These four profit-robbing losses can occur even when pigs are full-fed on corn. You can help stop these losses by feeding your own corn and oats properly balanced with MURPHY'S CUT-COST CONCENTRATE. More than twenty different ingredients go into every bag of MURPHY'S CUT-COST CONCENTRATE that supply the extra protein, mineral and vitamin substances needed to balance up grain and fortify home-grown feeds. These substances offset even "borderline deficiencies" that often contribute to runtiness, slow growth and death losses.

Before and after farrowing, feed your sows and pigs this ration: mix 300 lbs. MURPHY'S CUT-COST CONCENTRATE with 200 lbs. alfalfa meal, 700 lbs. ground oats and 1,000 lbs. ground corn. Let the baby pigs have access to this sow and pig meal by providing a creep where they can eat without interference from the sows. Faster gains, healthier, bigger pigs can be yours by feeding this farm-proved Murphy way. And best of all, it's about the lowest-cost feeding method you can use.



See your Murphy Feed Dealer for full information on feeding hogs for better results and bigger profits. Or write to us for our Free Booklet, "Producing Profitable Pork and Beef." Address your card to Murphy Products Co., Dept. A, Burlington, Wisconsin.

MURPHY'S
CUT-COST CONCENTRATE

He chose to go to grass

[*From page 134*]

per acre on one pasture and 5-10-10 on two others. On his alfalfa, he used 300 pounds of 0-19-19, to which he added enough borax to make it the equivalent of a 0-20-20. There's a boron deficiency in his district.

He is a great user of manure. For instance, the reason why one 8½-acre pasture yielded 550 bales and then provided pasture the rest of the summer on a rotation basis was because he had top-dressed it with 4½ loads of manure per acre, adding 100 pounds of superphosphate per load.

Engst clipped his orchard grass-Ladino pastures four times last summer to stimulate new growth and keep down weeds. The clipping dates were May 9, June 4, July 21, and August 24.

He says that it's quite a race just to keep his orchard-Ladino from getting too far ahead of the cows. He had to keep 35 cows on one 8-acre piece for 30 consecutive days. He puts up his grass silage in May and June, using those pastures where there's danger of the growth outrunning the grazing capacity of the cows.

He always picks the fields farthest from the barn for grass silage. That means less driving of the cows back and forth for milking.

Using several fields for grass silage can bring up the problem of stretching out the silo-filling period unduly long. Like others, Engst has found that the faster a silo is filled with grass silage, the better. However, he often goes a week between fillings. His experience shows that the silage should be well tramped and cared for if the filling job is carried out over an extended period of time.

> **A quarrel is like buttermilk; once it's out of the churn, the more you shake it, the more sour it grows.**
> —*Irish Proverb*

Corn, already on the decline, is being dropped completely from the rotation this season. That move takes courage and advance planning, so that you can see where your feed supply is coming from. However, the corn crop for several years past had been put up as silage, rather than harvested, and Engst has found that his cows like grass silage better than corn silage anyhow. So, it's not too big a jolt to quit corn.

He used to fill two silos with corn silage. Last year, he had one of corn and one of grass silage. This year, he'll fill both of his silos with grass.

How to feed grass silage is proving to be a problem for many farmers who are trying this form of ensilage for the first time. Engst has tried feeding the grass silage in the morning and corn silage in the evening. He has tried feeding the two together, or feeding either one alone both morning and evening.

The only difference he has noted is that the cows prefer the grass silage, for they will eat it first when both kinds are fed together.

Another consideration is the possibility of the odor or aroma of grass silage tainting the milk. Engst has found that grass

silage put up with plenty of molasses (60 to 80 pounds per ton) has a very desirable odor. Then, it makes no difference whether grass silage is fed before or after milking. He feeds before.

Engst believes that he can get still more from his pastures in the future by continuing the fertilizer and rotation plans he now has under way. That means he can carry more dairy cows on the same number of acres.

Using grass silage and alfalfa hay in the winter, Engst feeds, on the average, a ration of 1 pound of dairy concentrate to 4 pounds of milk production. During the summer, when the cows are on orchard grass-Ladino pasture, the ratio is stretched to 1 pound of concentrate to 10 or 12 of milk. He finds that the grain feeding can be cut down markedly when cows are on improved pasture.

He buys a complete dairy feed, using a 16- or 18-percent ration, the amount depending on the quality of roughage fed. Last winter, he fed grass silage, second-cutting alfalfa hay, and a 16-percent dairy ration, and his cows produced as well as they did the year before when they received corn silage.

Last year the herd averaged 410 pounds of butterfat and 12,000 pounds of milk, according to D.H.I.A. records. This is pretty good evidence that good production can be obtained from the above type of ration.

Engst is certain that he can get just as much feed from his land as he ever did, by trading grass for corn. He has no figures to prove this point, but it's a fact that, since going to grass farming, he has continually increased the size of his herd on the same number of acres.

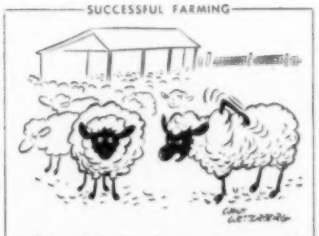
There's another angle to this entire program—labor. Much time and effort are being saved by growing fewer acres of row crops and letting the cows do more of the harvesting. No more labor is required for his present 42-cow herd than was needed when he had only 30 head. He hopes to have 50 within another year.

Said Engst, "My hired hand and I just take it easy. Now we spend more of our time on the cows, and that's a pretty profitable way of spending it."

This extra time is devoted to cleaning them more often and keeping more and better records on feeding, breeding, and production. Greater attention to herd health now is possible, and this means less breeding trouble, fewer cases of mastitis.

Engst's departure from corn is an indication of things to come in various parts of the United States. It's hard to wean yourself away from a conventional crop like corn. But trail blazers such as Engst are showing that it can be done, without loss of production or income, if the proper cropping and feeding practices are followed year after year. **END**

SUCCESSFUL FARMING



"I'll be glad when shearing time comes!"

3 Helpful Hints on Chemical Weed Killers

The successful use of any chemical weed killer depends on three factors:

1 CHOOSING THE RIGHT WEED KILLER. Any expert will tell you that no one weed killer will be the answer to all weed problems. That's why Dow offers you a complete line of weed killers, one for nearly every weed problem. Your Dow dealer has *eight* different Dow Weed Killers—the *right* weed killer for your weed problem.

2 BUYING QUALITY. Quality in any product is worthwhile. In weed killers, it is essential. Dow has been making dependable agricultural chemicals for over 50 years. That half century means experience in making good products. A pioneer in the production of chemical weed killers, Dow thoroughly field-tests all weed killers to assure proper performance. Further, all Dow Weed Killers are *spray-conditioned* to give you trouble-free spraying even in hard water.

3 APPLYING IT PROPERLY. Dow does more than just make a product. Many years are spent in developing proper recommendations. The instructions on the label of every Dow Weed Killer are the result of extensive field testing in cooperation with public agencies and private growers. They are recommendations you can depend upon. Your Dow dealer has detailed information on proper application.

When you buy weed killers—buy DOW DIAMOND quality

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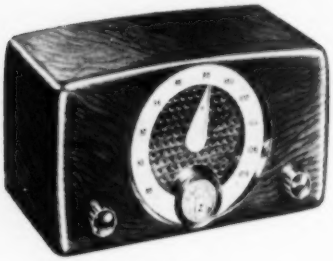

New Zenith "Major," FM Only. Its new Zenith Super-Sensitive FM works even where many AM or ordinary FM sets are practically useless! Dial-Speaker. Big set tone quality, smart walnut plastic cabinet. AC, DC. A terrific value. Only **$39.95†**

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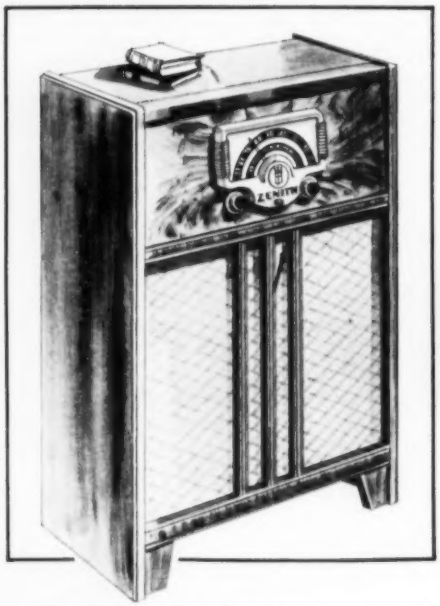

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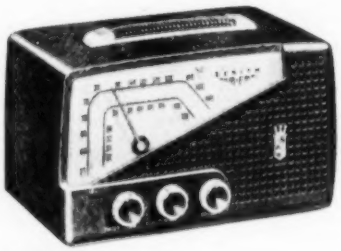

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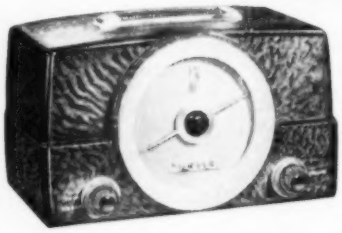

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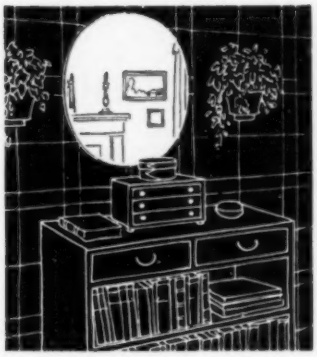
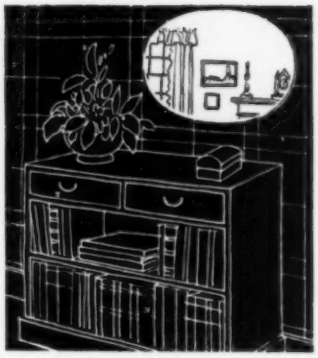
There's magic in mirrors!

[*From page 118*]



DO make your entry hall a light and cheerful place by using a mirror above a small chest or table. It will act as a window by reflecting light from near-by rooms



DON'T hang an oval mirror crosswise to try to make it fit furniture below it. It will look awkward this way. Hang it lengthwise, then add plants on each side to widen

DO make a corner window important by doubling its size with a mirror. The mirror should be same size as window, then hung on opposite corner. Treat the two as one unit

DON'T lose two-thirds of the light from a corner window by draping it on both sides. The draperies will look odd, since they must cover half of the window on one side

DO make the most of a small mirror above a teen-ager's dressing table. Add a wide frame of wallboard; paint or cover it with fabric; use it as a pin-up and bulletin board

DO turn the inside of your closet door into an efficient little dressing table by adding a mirror and a shelf and towel rack. Add small drawers under table if you wish. **END**

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Papier-mache craft

By Kathleen Bannon

Here's winter fun for the family with papier-mâché. Every household has the ingredients. Paper, water, and home-made paste are all you need to make a host of decorative bowls, trays, wall

How to make a candy dish

1. Cut several sheets of paper into 1-inch triangles. Soak pieces in water; press away excess moisture before applying to the mold

3. Brush bowl with paste when entire surface is covered. Add a second layer of paper and paste. Repeat process about eight times

5. Remove papier-mache bowl from model. Be sure it is thoroughly dry on the inside, too. Then smooth the surface with fine sandpaper

plaques, and jewelry. The pictures below give you the simple step-by-step directions for molding an attractive, colorful candy dish.

But this is only the beginning. Pool the family's clever ideas, give imagination free reign, and you'll all find hours of pleasure and possibilities unlimited with easy-to-fashion papier-mâché.

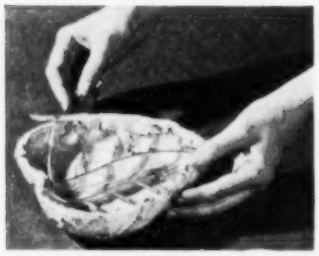
Begin by selecting an interesting object as your model, grease it lightly, and set it on wax paper before starting to work. Mix the following homemade paste, and you're all set for the picture steps below:

Recipe for prepared paste

½ cup flour
1 cup water
3 drops oil of cloves

Add the water slowly to the flour, stirring constantly. Heat until thick paste is formed (about 5 minutes). Add oil of cloves; cool.

2. Shape damp triangles on model, working from top down. Overlap each piece slightly with the next. Smooth wrinkles as you work



4. When outer surface is dry (about 24 hours), trim rough edges from rim by cutting carefully around it with a sharp razor blade

6. Paint the bowl inside and out with quick-drying enamel. When dry, add a gay design and the dish is ready for filling. END

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ALCOA ALUMINUM

Look for this shield on aluminum paints made by many paint manufacturers using ALCOA PIGMENTS

They'll stay in the calf business

[*From page 95*]

Cows have to produce a calf every 12 months to pay maximum dividends. These farmers who cull their herds closely weed out those which lag and produce only every 13 months or more.

Aged cows have no place, either. They are worth more on the market. A good replacement heifer selected from one of the better producing cows is cheaper. Cows which don't give enough milk to push calves, and those inferior in type and quality, can also be sent to market to an advantage.

Calves get the best roughage, but cows also need to be wintered well. This can be done cheaply. Lots of pasture for winter as well as during the spring, summer, and fall comes in handy. Most beef cow men count regularly on nine months of pasture.

Baxter Hall says he feeds his cows the cheapest roughage on his farm. They clean up the stalk fields, graze over stubble, and are on his permanent bluegrass during the winter. In addition, he gives them plenty of a good legume hay, usually lespedeza. The same is true of Ream, Weaver, and Shaw. Ream uses considerable sweet clover pasture, and Shaw usually has small-grain supplemental pastures during late fall and early spring. All these men, however, rely heavily on lespedeza and permanent bluegrass for summer pasture.

It is common for cows to winter on hay cut from the same fields they graze. Baxter Hall says he wintered one group of 39 cows on 40 acres of timothy and lespedeza pasture, from which 40 tons of hay had been cut and stacked in the field. The cows ate five of six stacks during the winter. Along with this he also fed about 1,500 pounds of cottonseed meal.

Hall likes to have about 25 percent more grass during a good season than he actually will need. Then he knows he will have enough to carry his cattle during a lean year.

While using a good bull and breeding for early calves are the big things, a few more minor management practices help insure success for these producers. All castrate their bull calves early, preferring to do this when calves are 3 days to 3 weeks of age.

Spraying for flies is very important and practiced widely. Dehorning calves from 10 days to 6 weeks of age is another primary point.

Producing quality feeder calves is big business. It is also a safe one, provided a few primary management practices are followed.

Sterling Shaw believes it a fine way for a young farmer to start in business. Your cows are your factory, he says. They can always go to market and, with a reasonable price level, will pay off their own mortgage. But, with good management, your calf crop will do that. And there is a variety of ways to market quality feeders.

In short, men who will stay in the business say this: Use a good purebred bull. Breed for early calves. Give both cows and calves plenty of pasture and water. Cull out poor cows. Then, with reasonably good care and management, they will do the job. **END**

Here's a home that has everything

This home was designed with every member of the family in mind. And there's plenty of room for everybody.

All the rooms in this home are able to function smoothly and efficiently as separate units. There's no tracking through one room to get to another. The central hall takes care of that. This house, as all *Successful Farming* homes, has the Big Three: (1) An entrance on the driveway which keeps visitors away from the back door; (2) A central hall which eliminates track-through; (3) A workroom to take care of all those dirty jobs that you normally have to do in the kitchen.

This home is designed with two porches which make mighty nice places for a rest after the chores are done in the evening. Plans call for a full basement but you can alter this feature to meet your needs.

The workroom is entirely shut away from the living rooms and is a concrete-floored space lit by glass-brick paneling plus regular windows.

The bedrooms are all cross ventilated. This home is 47'x51' at the widest measurement. Bedrooms are all adjacent to the family bathroom and to the wide hallway. The arrangement of the washroom and bath cuts down the length of plumbing necessary; everything is compact for easy step- and laborsaving living on the farm. You'll like this house. **END**

You can get a complete set of working drawings, and a moneysaving list of materials for building this home by sending $2.50 to Successful Farming, 1103 Meredith Publishing Co., Des Moines 3, Iowa. If your local department store is a cooperator in our Home Planning Service you can get the complete plans there. Cooperating stores are listed on page 62. Be sure you ask for plan No. S1311 when you order your set.

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Throughout the years, Waterbury has called attention to the workmanship and materials *inside* their furnaces—where it really counts! That means real confidence in every unit they make.

Remember—*"It's What's Under the Casing that Counts!"*

EASY BUDGET PAYMENTS CAN BE ARRANGED

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Please send me "Seven Steps to Indoor Comfort" and the complete folder of Waterbury Units, also the name of my nearest Waterbury Dealer. This request must not obligate me in any way.

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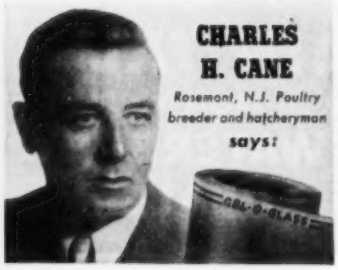

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"Every new house we have ever planned has made provision for 'Cel-O-Glass' windows," says Mr. Cane. "It is an excellent product; it protects our birds against cold and rainy weather; it keeps our houses warmer and contributes to the comfort of the birds. In addition, it is durable and easy and convenient to install."

CEL-O-GLASS Windows were used in this 5-pen poultry house, as in all others built on the Cane Poultry Farm to produce and house a half-million chicks, 40,000 started birds, and 3,000 laying hens.

CEL-O-CLASS Gives You All These Advantages:

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Many Uses. *Quick and easy to install for long-life, sturdy windows in brooder houses, poultry houses, dairy barns, milk houses, hog barns, etc. Fine for porches, storm doors and windows, hot beds, plant protectors, other permanent and emergency uses. Keep a roll on hand—it takes little space—comes in 28- and 36-inch widths. The Du Pont Co., Organic Chemicals Dept., Wilmington 98, Delaware.*

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CEL-O-GLASS®

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

How to plant and grow a rose [*From page 68*]

4. Fill depression with water; let it soak in; fill again. When you plant in fall, it's essential that plants go into the winter season with lots of moisture around the root systems

5. In fall planting, cut rosebush tops to about 12 inches above ground; next spring cut the rose back to 6 inches. In spring planting, cut the tops to 6 inches at once

6. Mound soil 8 inches around canes right after planting, to keep sun and wind from drying canes. Then shade soil with a light covering of leaves. If you fall-plant roses, add several inches of mulch after ground freezes, to hold a more even soil temperature. Because of severe winters, roses should be planted in spring in most Midwest states

How to feed

Supply nitrogen, phosphorus, and potash in the form of a balanced plant food or special rose food. When plants have been in place 3 weeks, give each a handful (about 1 cup) of food, and water thoroughly at once. Place food out from stem, over the root tips

How to water and protect

Water roses once a week in spring, summer. Apply water at soil level, without spattering. Apply sprays and dusts near soil (see drawing above). To kill disease spores and pests, coat leaves lightly every 10 days with combined Fermate, sulfur, DDT, rotenone

How to cut

Always cut a rose with an eye to health of the bush. Take no longer a stem than you will need. Always leave two full-size rose leaves on the stub, and make the cut with very sharp shears or knife. Cut 1/4 inch above base of topmost leaf left on the stem. **END**

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you can't beat the new PONTIAC

The Most Beautiful Thing On Wheels

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America's Lowest-Priced Straight Eight

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Lowest-Priced Car with GM Hydra-Matic Drive
Optional on all models at extra cost.

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Thrilling, Power-Packed Performance —Choice of Six or Eight

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World Renowned Road Record for Economy and Long Life

You can compare Pontiac, feature for feature, with any new car on the market and quickly discover that dollar for dollar you simply can't beat a Pontiac!

But there is an even more important reason why so many thousands of people everywhere are deciding to make their next new car a Pontiac. It is the simple fact that there is a great deal of *added* pride and satisfaction in owning and driving this big, distinctively beautiful car—and you pay nothing for these added pleasures!

And these are feelings which last for years—because Pontiac is built to deliver superb performance mile after mile with only routine servicing attention.

Drop in on your nearest Pontiac dealer—and see for yourself what a value this car really is!

Pontiac's Bodies by Fisher offer Wide Horizon Curved Windshield and more glass area all around.

PONTIAC MOTOR DIVISION of GENERAL MOTORS CORPORATION

DAIRY EXPERTS PROVE

VEL* reduces bacteria counts...

Cleans milking equipment cleaner...faster...easier!

Be a quality producer...CLEAN WITH VEL!

Bacteria can't multiply and live in milking equipment cleaned regularly with Vel!...Vel cleans so thoroughly it leaves no food for bacteria. That's been proved by one of the foremost independent laboratories in the dairy industry. Results: bacteria counts *stay* down when you clean with Vel!

And Vel's so much quicker, easier to use! Vel flushes out milk fat and slime...prevents milkstone from forming!...Brushing's cut to the minimum!

Soapless suds recommended by many agricultural schools

They clean so fast ... so thoroughly! Not a soap ... not a bactericide ... Vel, a neutral soapless suds, is recommended *by name* by these milking equipment manufacturers: Perfection, Farmcrest, Conde and Hinman.

HOW TO CLEAN MILKING MACHINES FAST...WITH VEL:

1. Right after milking, run solution of hot water and Vel (1 tablespoonful per gal.) through unit, while shaking it. Then brush the milker head and hoses.
2. Remove head and sealing rubber and brush them with Vel solution. Replace parts; suck through a pailful of boiling water or sterilizing solution.
3. Dismantle and leave parts to dry. Just before next milking, reassemble machine; suck through boiling water or sterilizing agent.

*Vel is the trade-mark of the Colgate-Palmolive-Peet Company.

GET TOP PRICES FOR YOUR EGGS!

VEL cleans *"Dirties"* in a few seconds!

Eggs keep their bloom! Keep better, even in storage! Hatching eggs unharmed! No buffing necessary! No other leading product as mild as Vel will do this job for you! Just put some hot water (160°) in a clean ash can and add one tablespoonful of Vel per gallon. Dip each basketful of eggs in this solution 4 or 5 times. Repeat in clean, cold water or spray thoroughly with hose.

***IMPORTANT:* Do not soak eggs. In all, eggs should be in the hot water no more than 10 to 15 seconds.**

BUY VEL FROM YOUR REGULAR GROCERY DEALER

How I handle my mischief-makers

By Joan Wolman

Jimmy looked up with that half-glad, half-guilty expression. Pots and pans of all sizes and shapes were strewn around him. I checked my impulse to scold him, for Jimmy wasn't naughty when he pulled the shiny pots and pans out of the cupboard. To him, the many shapes and sizes were interesting.

He learned from his experience with the pans. As we looked out of the kitchen window, we compared the shapes of the pots and pans with trees, clouds, and hills.

Jimmy's consistent playing with my pots and pans went on for some time. Then one day in desperation I gave him a pan of his own. Without a doubt, it was one of my wisest moves, for Jimmy is fiercely proud of having his "own" pan and guards it jealously. From the outset, we made a careful distinction between "Jimmy's pan" and "Mother's pans." I keep his pan in the cupboard with mine, but always near the front and within easy reach.

My Sue is a pot-and-pan player, too. Early in the game I learned that she was not being maliciously mischievous; she was, instead, just completely fascinated by their shapes. To her, it was all an exciting experience, even though the mess was provoking to me. I soon realized that she was too young to understand when I scolded her, so I mustered my biggest smile and said, "What fun you're having! Can you tell me about the pots and pans?"

Then, while she gave me her versions of the pots and pans, together we put them back into the cupboard. I gave her positive, specific, unhurried, and encouraging instructions about replacing the pans, and was enthusiastic about the skill with which she replaced them.

It was my way of discovering that Jimmy and Sue had a genuine need for stimulating play materials. I thus learned they had need for toys that gave them the chance to handle and feel different textures, to look at and fit together odd shapes, and, in general, for play materials that introduced new experiences in coordination and creative play.

So I promptly gathered together a host of play materials which would keep my youngsters out of mischief. They include: a roomy sandbox, zinc-lined so that the sand may be dampened for molding; many blocks of different colors, shapes, and sizes; picture puzzles; modeling clay; books with colored pictures; large pencils and paints; blunt scissors and stiff paper for cutting out paper dolls and animals; dishes of all shapes; and things to push, pull, and ride.

The wonderful thing about all of these play materials is that they have taught both of our youngsters to do things with their hands and have induced them to make use of their imaginations. **END**

Some Kitchen Helpers Never Grow Old

... for an "Unseen Friend" keeps their beauty unchanged

When Karen Rogers was born, Dad surprised Mother with some new kitchen appliances. He wanted to lighten her work so she would have more time with the baby.

When Junior was born, he bought still more appliances. And he added to them through the years.

Now the children are growing older... and becoming kitchen helpers themselves.

The appliances, though, never seem to grow old. Older in years perhaps, but not noticeably older in appearance.

Today they look almost as new as the day they started to lighten housework for Mrs. Rogers. The years of hard kitchen duty have scarcely marred their mirror-bright, chromium-plated surfaces.

What makes the plated surfaces so good-looking ... so long-lasting?

The good looks come from the chromium plating itself – a surface coating that is ever so thin (only two 100,000ths of an inch).

The durability comes from a protective undercoating of Nickel, "Your Unseen Friend."

This protective and unseen layer of Nickel is many times thicker than the chromium skin. For tests show that the durability of decorative chromium depends most of all on the thickness of the Nickel underplating.

Without such stout protection between this surface skin and the base metal the plated ware would soon rust and stain. But with a *thick* undercoating of rust-proof, corrosion-resisting Nickel, it takes rough handling with little damage to its beauty.

So whenever you see high quality chromium plating in your kitchen ... in your bathroom ... on your car ... remember that beauty-preserving, friendly metal that is underneath and unseen.

No wonder Nickel is called *"Your Unseen Friend."*

To learn more about Nickel, "Your Unseen Friend" *– how it's produced, what it's used for today, and what research is doing to make Nickel even more useful tomorrow – write for a copy of "The Romance of Nickel." It is free. Write Dept. 68z, New York 5, N. Y.*

THE INTERNATIONAL NICKEL COMPANY, INC.

EMBLEM OF SERVICE
INCO TRADE MARK **Nickel**

©1950, T. I. N. Co. **...Your Unseen Friend**

"Am I glad I live here!"

Kohler fixtures and fittings are good to look at and as good as they look! Beauty of line and proportion, fine materials, and unsurpassed workmanship, all are in the Kohler tradition of doing things well.

The Cosmopolitan Bench Bath has a flat rim providing a convenient seat, a flat bottom for safety in standing, a low front for easy access. Its lustrous, glass-hard finish of Kohler enamel is protected from stress and strain because it is fused onto a base of non-flexing iron, cast for rugged strength and rigidity. The Jamestown vitreous china lavatory has a roomy basin, with generous slab space for toilet articles.

KOHLER WILSHIRE SINK, *with easy-to-clean, lustrous, acid-resisting enamel surface. Two roomy basins, double drainboard, full length shelf, faucet with swing spout and hose spray.*

Consult your Kohler dealer concerning bathroom, washroom, kitchen and laundry fixtures. And make it an important point that each Kohler fixture be equipped with Kohler chromium-plated brass fittings to insure matched beauty and maximum efficiency in each working part. Send for illustrated booklet B-19. Kohler Co., Kohler, Wis.

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Plumbing Fixtures • Heating Equipment • Electric Plants • Air-cooled Engines

The new movies

By Betty Camp

The movies this month take you on a travel spree—back to our western frontier, to glamorous Paris, to the eerie jungles of Burma. Three are highly adventurous; the fourth is a human story which you will long remember.

A favorite of the all-American boy from 7 to 70 is a good old shoot 'em up western. We rate MGM's **Ambush** above the average.

Pretty-boy Robert Taylor puts on his spurs and goes rugged to play Kinsman, frontier-wise scout who is called upon to fight the treacherous Apache Indians when they take a white woman captive. John Hodiak is the West Point cavalry captain, Kinsman's rival for the heroine's (Arlene Dahl) favor.

(Arlene, by the way, seems to have no difficulty maintaining her elaborate coiffure and meticulous gowns amidst the flying dust and savage scrimmages—but we wouldn't want it otherwise).

Another on the fast-moving side, but in a different vein, is **Twelve O'Clock High** (Fox). It's the story of the 918th Bomb Group (Eighth Air Force) who first launched the incredible task of daylight bombing over Germany in 1942. The womanless cast is headed by Gregory Peck as tough Brigadier General Savage who took over the group's command when morale among the men was at its lowest.

On the surface, Savage is a man of iron discipline, following orders blindly, never showing his deep personal sympathy toward his men during their dangerous mission. Ultimately this leads to his nervous collapse, but not until the airmen have succeeded in bombing German targets.

Excellent casting includes Hugh Marlowe, Millard Mitchell, Dean Jagger.

The Man on the Eiffel Tower. (RKO) a spine-tingling detective thriller, gives

Murder suspect Franchot Tone faces detective C. Laughton on top the Eiffel Tower

Robert Taylor has no trouble interesting pretty Arlene Dahl in western, *Ambush*

powerful Charles Laughton a chance to show his acting brilliance—and that he does. As Inspector Maigret, he unravels a murder case and saves an innocent man from the guillotine by relentlessly tracking down the real villain. The hunt comes to a climax with a chase over the roofs of Paris and to the top of the 984-foot Eiffel Tower.

This first full-length film made in the new Ansco color gives you a more complete picture of Paris than if you had spent months in the beautiful city.

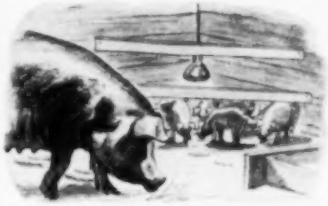
Thousands of imported tropical plants, shrubs, and trees form the jungle atmosphere for **The Hasty Heart**, a Warner Brothers' production filmed in England. Ronald Reagan and Patricia Neal are starred, but real acting honors go to Britisher Richard Todd for his portrayal of a stubborn Scottish corporal, Lachie.

Story opens just before the Japs were defeated in the last war. A British detachment is threading its way through the heart of the Burma scrubland when an explosion catches Lachie, and he is sent to the hospital for an operation. He is not told of the resulting fatal complications which number his days on earth.

Margaret, the ward nurse, and her other patients take it upon themselves to make Lachie's last days happy. Patients include an American (Reagan), a lanky Australian (John Sherman), an African Negro who speaks no English (Orlando Martins), a Cockney, and a New Zealander. This is an appealing drama of human relations which stresses man's need for understanding from his fellow men. (*For reviews of "Good Films for Home or Meeting," turn the page.*) END

The Hasty Heart belongs to British actor Richard Todd who plays opposite P. Neal

General Electric heat lamp does dozens of farm jobs . . . costs $1.10

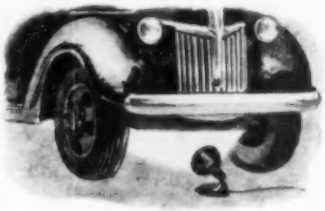


1. SAVE 1 TO 3 MORE PIGS PER LITTER

Pig brooder uses standard General Electric heat lamp to keep pigs warm, prevent smothering. Lamp can also take care of chicks, lambs, calves.

3. REST A SPELL AND SOOTHE TIRED MUSCLES

Lamp's infrared rays help soothe muscular pains caused by over-doing.



2. PUT THE HEAT ON A STUBBORN ENGINE

Turns over quicker in cold weather, when warmed by G-E heat lamp.

4. MORE WAYS TO USE YOUR HEAT LAMPS

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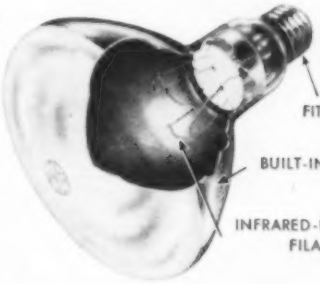
STANDARD MODEL $1.10

HARD-GLASS MODEL $2.95

HEAT LAMP



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40-watt fluorescent . . . **$1.00** | Projector-flood lamp . . . **$1.55** | 4 bulbs in 1 pkg., 100-watt . . **60¢** | 60-watt lamp bulb . . **12¢**

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The BEAR CAT
COMBINATION
Grain and Roughage Mill also Ensilage Cutter

Grinds any feed—green, wet or dry. Snapped or ear corn, roughage bundles or bale flakes and no monkey business. It really grinds, and with ordinary farm tractor. Has both cutter head and heavy swing hammers. Adjustable Drop-Apron Feeder works in any position from ground to truck bed height. Get full information on this real honest-to-goodness Bear-Cat Grinder. Four sizes. Write—
Western Land Roller Company, Box 306, Hastings, Nebr.

Advertising in Successful Farming is carried under the guarantee on the index page.

Decorating advice. Stores offering Successful Farming's home planning service are listed on page 62. Visit the store nearest you for help with your decorating problems.

CORRECT HEALING
OF THE VITAL MILK DUCT
demands, above all else, that the SHAPE of the duct be held in exact, normal position during healing. No device does this like scientifically-shaped, ivory-like BAG BALM Dilators. Smooth, flexible, sterilized and packed in medicated ointment. Will not dissolve, come apart or snag tissues. Cannot absorb pus infection. 25 in medicated BAG BALM. At all farm-supply stores.
DAIRY ASSOCIATION CO., INC.
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Bag Balm
TEAT DILATORS

Good films
for home or meeting

At Your Command, a report to American farmers. This 16mm film explains the services now available to you through the Department of Agriculture, county agents, college extension courses, and commercial firms.

Farmers will get a clearer picture of the work these groups are doing on improving livestock, better seeds for grains, better knowledge of soil control and growing conditions. Farm wives and children will be interested particularly in the services of the Bureau of Home Nutrition and Home Economics, and the work of the 4-H Clubs and the F.F.A.

Cast includes people who live the roles they portray—real-life farmers, farm wives, county agents, dealers, and research workers.

Produced by Ethel Corporation, Chrysler Building, New York 17, New York. Free of charge for farm group showings; distributed through state libraries.

Every woman, particularly if she has a less than perfect figure, faces altering problems when she buys a ready-made dress. It's economical to do the work yourself, to learn how to give a garment style by adjusting it to your individual measurements.

Truly Yours, new color film produced by the U.S.D.A. Bureau of Home Nutrition and Home Economics, shows you step by step how to alter a dress for three common types of figures: The heavy figure with small shoulders and large hips; the short, plump figure; and the tall, slim one. The 16mm film also touches on pattern fitting and offers sound buying guides.

To rent, write to the Visual Education Distributing Department of your state college or university, or directly to the U.S.D.A., Washington 25, D. C.

My Country, the story of our living soil—nearly two billion acres of it. This 16mm film, through the use of dramatic natural color scenes of U.S. farms, drives home the importance of conserving our precious topsoil. It tells what's being done and what we can do to keep our land productive.

Produced by Goodyear Tire and Rubber Company, Inc. Your Goodyear district office has a print and will show the film to farm groups free of charge.

Shy Guy. Here's an effective prescription for a major juvenile problem—overcoming shyness. Our high-school hero, lonely in his new school, learns to make and enjoy real friendships. Guided by his dad's counsel and his popular, sociable classmates, he becomes a likable model for your children to follow in their own difficult period of social adjustment. Produced by Coronet Films, Coronet Building, Chicago 1, Illinois.

The Living Earth Series. Four 10-minute films in full color which emphasize, through magnificent photography, the vital importance of conserving our natural resources. Produced by Encyclopaedia Britannica Films, Inc., 20 N. Wacker Drive, Chicago 6, Illinois. END

Tell your baby sitter

- **Where you can be reached**
- **Your doctor's name**
- **What to do in an emergency**

By Fred Berggren

You probably pay a baby sitter from 25 cents to 65 cents an hour. Yet in spite of this paid protection for your children, you dash off, leaving a girl who is perhaps only a few years older than the children she is protecting—and you expect her to perform like an adult. Stop to realize that if the girl knows nothing of your whereabouts or whom to call in case of emergency, she is as helpless as your young offspring.

The next time your neighbor's teen-age daughter stays with your children, think before you leave for that movie, Grange or Farm Bureau meeting. The evening probably will be uneventful for her, but you should take into account the possibility of unexpected callers, important phone calls, or the dog's steady barking near the brooder house. If she sees that you are thinking of her, she'll likely do a better job of caring for your children.

A list of emergency phone numbers is a necessity for your baby sitter. Put your doctor's phone number at the head of the list. You also might remind your sitter to tell the doctor where to come. If he knows your family well, he may drive directly to your farmhouse. But if you have left your children at a neighbor's home, you can see the difficulties involved. Show your sitter where to find your well-stocked first-aid kit and how to use it.

Next on the phone list should be the number where you can be called. Leave a few clear, concise instructions about what to do in case of fire, with the phone numbers of the fire department and the nearest neighbor heading the list. If you have a fire extinguisher in your home, show her where it is and how to use it.

Leave a pad and pencil for recording incoming calls, and supply detailed instructions about baby foods, diapers, and schedules.

When you leave, be sure you have told your trusted girl of the evening not to let in unknown callers. This is simply a good safety precaution.

In the country, the electricity often goes off for brief periods during severe electrical storms. Rather than letting your sitter struggle in the dark during this time, show her where to get an old-fashioned kerosene lamp or lantern, a flashlight, or candles for emergency light.

Chances are your sitter will not have to respond to any emergency at all. But with the above precautions on your part, she'll be much better equipped to do the right thing just in case.

A few names and telephone numbers will instill confidence in your baby sitter, assure greater safety for your children, and add to your own peace of mind. **END**

THIS MONTH

CONTAGIOUS DISEASES

CALL FOR SPECIAL HOME PROTECTION

How Mothers Help Guard Family Health

TO HELP PREVENT disease germs from striking at family health, alert mothers, the country over, take this simple precaution: they disinfect with potent "Lysol" brand disinfectant when cleaning their homes. Floors, walls, woodwork . . . *everywhere.*

IF SICKNESS should be carried in from outside, then dependable "Lysol" becomes even more a *must* in the sickroom. The patient's bed, bedding and utensils all need disinfecting with "Lysol"...2½ tablespoons to each gallon of cleaning water.

TAKE SPECIAL CARE, with sickness in the home, in cleaning bathroom and all sickroom utensils. Use potent "Lysol" disinfectant solution, to fight disease germs.

Look to your Doctor and your Druggist

Call on their knowledge and skill whenever needed. Be prepared, *before* sickness may occur, with basic Sickroom Needs! Your druggist is featuring these items now. Check with him today!

HELP PROTECT *your* home against disease germs. Remember—many healthy, happy homes, coast-to-coast, depend on powerful "Lysol" to help guard family health.

"I've Found a Way To Double Profits on hens, pigs, cows!"

Amazing How Zonolite* Insulation Boosts Farm Production, Keeps Poultry and Livestock Healthy

Proved on thousands of farms! You can increase production of meat, milk, eggs and have healthier livestock and poultry—when you insulate farm buildings with Zonolite Vermiculite. Just pour this loose-fill insulation between ceiling joists and side-wall studs, or, for concrete floors in barns, hen houses, and hog houses that are always warm and dry—mix Zonolite aggregate with cement in place of sand.

CUT INSULATION COSTS... SAVE UP TO 40% ON FUEL

Enjoy the comfort and economy of a fully insulated home, too. Only a fraction of the usual cost—you can install Zonolite yourself. It's rot-proof, rodent proof, and 100% fire-proof—*actually snuffs out flames!* Amazingly efficient insulation, too, saves up to 40% on fuel costs.

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He built his dairy herd on seven points

Frink herd pays several times the state average. No fancy stock—just cow sense, hard work, experience

By Al Christman

"You can't buy a dairy herd!" That's what Harry Frink of Hallsville, Missouri, was told in 1916 when he first considered giving up general farming for dairying.

The advice came from his friend, Clarence H. Eckles, dean of the Missouri College of Agriculture, who also emphasized, "You can't succeed in the dairy business unless you have a breeding program. You must build your herd with your own replacements."

Today, Harry Frink passes out the same advice with the assurance that it is the most profitable information which has come to him in 33 years of dairying. It is the basis for the steady gains in production by the herd, now owned jointly by Harry Frink and his son, Glenn.

The value of the Frinks' 7-point dairy program, which we'll describe, can be determined by a glance at their recent production figures.

In 1933 when Harry Frink joined the Dairy Herd Improvement Association, the average butterfat yield of the herd was 280 pounds. During the past three years the partners' herd of grade Jerseys has averaged 428 pounds.

Whereas the annual gross income from the average cow in Missouri has been estimated at considerably less than $100, the Frinks average $393 a year gross income per cow. Although they have only a 160-acre farm and 31 to 32 cows, they made over $1,000 a month last year from their milk. They average from $1,200 to $1,400 a year from the sale of surplus stock.

1. Get in, then stay in. The first thing Harry Frink had to do was to make up his mind that if he was going into dairying he was going in to stay in. For, as he says:

"It is strictly a long-term proposition. You can't expect to reach the 400-pound butterfat mark until you have at least 15 years of herd records behind you."

2. Raise own replacements. The second factor in the Frinks' success was their breeding program which provided them with their own replacements. The Frinks have not bought a cow in 30 years.

At the start, the herd consisted of three cows, two of unknown ancestry.

3. Use good bulls. To build up their herd, bulls have been bought from high-production families. So, despite the fact that they have never had a registered Jersey cow, their bulls have been purebreds. And it should be pointed out that the grade Jerseys in the Frink herd are registered for production.

As to the fine points of show cows, Harry Frink says, "I'd just as soon have a cow whose hipbones could serve as hatracks as long as she can produce."

4. Follow line breeding. According to Harry Frink, expectations will be met 85 percent of the time with line breeding, whereas with outbreeding the dairyman is gambling with the odds against him. As will be seen later, the Frinks have had to take that gamble several times.

5. Keep accurate records. Herd records are an essential part of their program. The herdbook—basis for most of their records—gives valuable facts on each animal. These facts are most helpful when the herd must be culled. Although returns from keeping records may not be great during the first years, it is only through years of records that real advances will be made. And the earliest records will finally prove to be the most valuable.

Besides the regular herdbook and breeding records, the Frinks also have the record of the cow family which is contributing most to the herd. Although the establishment of the records may be difficult at the outset, they grow increasingly easier as they become more and more routine.

Most of the records on the Frink herd are kept by the cow tester of the Dairy Herd Improvement Association. It was somewhat surprising to the Frinks during the first year they had this service to find that the cow tester arrived at almost the same total for their year's milk production by taking sample weights once a month as they did by weighing the milk daily. Now they save work by taking the cow tester's figures.

6. Produce clean milk. By selling on the inspected market in nearby Columbia, Missouri, the Frinks made $1 a hundred more than the producers of D milk. When figured on the basis of their 220,000-pound annual production, this dividend for the proper handling of the milk becomes considerable.

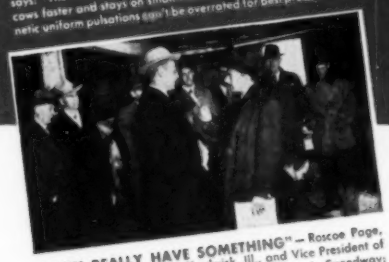
7. Build the soil, too. Finally, the Frinks realize that in the last analysis their milk dollars come from the soil. According to the philosophy of Harry Frink, "The soil is like a bank account. It's all right to draw on it, but you had

[*Turn to page 154*

USERS EVERYWHERE get better milking

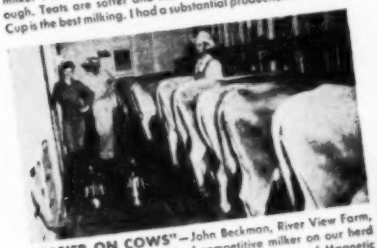
with the New DE LAVAL MAGNETIC SPEEDWAY MILKER!

"UNIFORM MILKING PAYS"—M. L. Jansen, Herd Manager, Kimberton Farms at Phoenixville, Pa. (four farm units), says: "The new De Laval Magnetic Speedway milks big-teated cows faster and stays on small-teated cows perfectly. The magnetic uniform pulsations can't be overrated for best production."



"YOU REALLY HAVE SOMETHING"—Roscoe Page, owner of Unadilla Farm, Chadwick, Ill., and Vice President of Kraft Foods, says of his new De Laval Magnetic Speedway: "... it is the most perfect mechanical milker I've seen ... it is maintaining excellent udder health ... is easier to clean ... and we milk 25 cows in 25 minutes."

"FIRST REAL MILKER"—Ned Kelsea, Colebrook, N. H., says: "The new De Laval Magnetic Speedway is the first real milker I ever had. Milking is faster, cleaner and more thorough. Teats are softer and more flexible. New 'Full-Flo' Teat Cup is the best milking. I had a substantial production increase."



"EASIER ON COWS"—John Beckman, River View Farm, Blackwell, Okla., says: "Used competitive milker on our herd of 30 purebred Jerseys. Changed to new De Laval Magnetic Speedway. It is easier on cows, faster, requires no stripping and milking time is reduced by 30 minutes a day."

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The exclusive De Laval magnetic pulsation control assures precisely the same milking speed and action day after day. This is the first and prime essential of "Controlled Milking"—and only the De Laval Magnetic Speedway has it!

"CONTROLLED MILKING"

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NEW "FULL-FLO" TEAT CUPS

A completely new design—the greatest single advance in the science of milking in many years . . . and exclusively De Laval's. It brings "Controlled Milking" right to the point of milk excretion—with greater comfort to the cow and faster, more productive milking. One-piece liner provides easiest assembly and disassembly.

LOWER VACUUM

In the new Magnetic Speedway, De Laval has successfully engineered a machine to operate properly and comfortably—for best and fastest milking on lower vacuum—which is uniformly maintained at all times for "Controlled Milking."

NEW "CONTROL-AIR" PULSATOR

The new "Control-Air" Pulsator meters the air to produce a new, more gentle squeeze—more soothing to the cow, more productive of milk—for "Controlled Milking."

NEW "TRU-BALANCE SANI-CLAW"

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The New De Laval Sterling Speedway Milker

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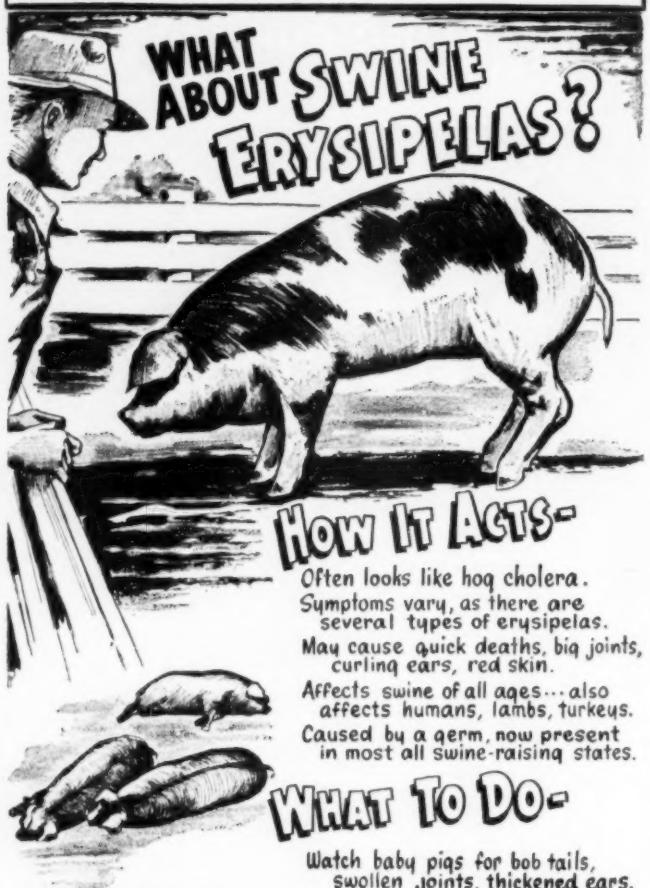

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STATIONERS EXCHANGE, HELOTES 22, TEXAS

He built his dairy herd on seven points

[*From page 152*]

better make some deposits." In the early days Harry Frink overdrew on this account himself, and he has had a major job building up his soil. In the past 15 years, tons of fertilizer have been added, miles of terraces constructed, acres of legumes plowed under, crop rotation begun, and today the Frink farm is twice as productive.

These 7 points have worked. By tracing back the ancestry of the present herd of 32 grade Jerseys, it is seen that there are no traces left of the original three cows Harry Frink had when he first decided to go into dairying. More important is the fact that in selecting the best producers over the years, the Frinks were gradually eliminating the descendants of all but two of the eight cows owned before 1919.

How one cow family did. Although Harry Frink had decided to go into dairying in 1916, he planned to ease into the business. So he kept up a variety of farm activities. For one thing, he bought a group of heifers to feed for the beef market. Fortunately, he changed his mind and decided not to sell one of these heifers for slaughter. This heifer of unknown background became a fair milker, and one of her daughters did even better over the milk bucket. This daughter's daughter, Vie, became the pride of the Frink herd.

Of the 30 cows in the herd on January 1, 1949, 19 were descendants of Vie, who was born in 1922. The 90 female progeny stemming from Vie have provided the top producers of the herd. In 1934 Vie produced 432.1 pounds of butterfat in a 305-day period, a record for the Frinks at that time.

None of Vie's seven daughters measured up to her in production, but at least one of the daughters, Vie 2nd, had the ability to transmit production capacity. Top producer of Vie 2nd's eight daughters was Susie, who in her eighth year produced 12,170 pounds of milk and 560 pounds of butterfat. Continuing the upward trend is Sally, the daughter of Susie, who in 341 days gave 710 pounds of butterfat and 14,000 pounds of milk.

But figures may be misleading. The importance of the increases through the various generations is lost if the sisters of the best producers are not also considered. Take Pansy, for instance. She was a much better producer than her sister, Vie 2nd, but she lacked that unknown factor, the ability to transmit, and her daughters and granddaughters pushed the herd production downward.

The bull half of the herd. If the herd is to be built through the replacements raised on the farm, it is through the bulls that higher productive capacities are built.

In the past the Frinks have kept two bulls, each to breed on to the other's daughters. At present they have one bull and do half of their breeding through artificial insemination.

Choose one bull family. Although Harry Frink had started line breeding when he first went into dairying, it was not until 1929 that he started using the

Pogis family as a source for all his bulls.

This family was taken despite the fact that it is often considered a somewhat rough breed as far as show points are concerned—but the Frinks are interested in bringing home the milk rather than the ribbons. The individual bulls of the Pogis family were selected for special traits which would offset any weaknesses appearing in the herd.

Aside from the fact that there are fewer chance factors operating in line breeding, the Frinks feel that line breeding ends many dangers of introducing diseases to the herd. They have never had a case of Bang's disease. One experiment in outbreeding with a bull which had an excellent record at home produced nothing when the bull failed to nick with the Frink herd.

Try artificial breeding. In order to take advantage of the economics of artificial insemination, the Frinks are finding it necessary to change from the proved sires of the Pogis family.

Before they completely eliminate the bull pen in favor of the test tube, and the Pogis family for a breed from which semen is available, they are going to wait until production records prove the wisdom of the change. In the meantime, their cows are being served both by a Pogis sire and by artificial insemination.

Records show what bulls do. The work of R. S. Caldwell, cow tester from Columbia, has been especially valuable in showing the importance of records with regard to bulls. By making many comparisons between the production of dams and their daughters, he has been able to compile records indicating the value of particular bulls.

Even with complete records it might take as long as three years to make certain in which direction a bull is pushing a herd. It is true that in three years a poor bull can skim off the top cream of production figures. But it should be remembered that in a lifetime the bull's work can clip a top herd down to average.

Feed them well. Building up a herd is one thing; keeping it is another. Harry Frink looks over a lifetime of 72 years, filled with practical farming experience. Both father and son agree on the primary rule of getting the most production out of a good cow—"Feed them strong!"

On the average, they figure that each cow will eat 1½ tons of grain, 2 tons of silage, and 1½ tons of hay during a year. They feed from 1 to 2 pounds of grain per pound of milk in the winter. Even if the cows won't always eat grain in the summer, it is put before them. The standard ration is 4 pounds of corn, 2 of wheat-bran, and 1 of soybean meal.

Need bigger herd for efficiency. Although most of their work is aimed at bringing the most production from their cows, they do not follow a three-times-daily milking. While this third milking would increase the production about 11 percent, they feel that this increase does not warrant the extra labor.

They prefer to put that extra time into their soil-building program which will, they hope, allow them to keep a larger herd. The Frinks feel that any major increase in over-all production must now come through keeping a larger herd rather than in pushing the average production much higher. END

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And Zemacol helps relieve itching of eczema-like rashes, hives, athlete's foot, other common skin irritations. A Norwich product with money-back guarantee. At all drugstores.

For quick relief from chapping—use

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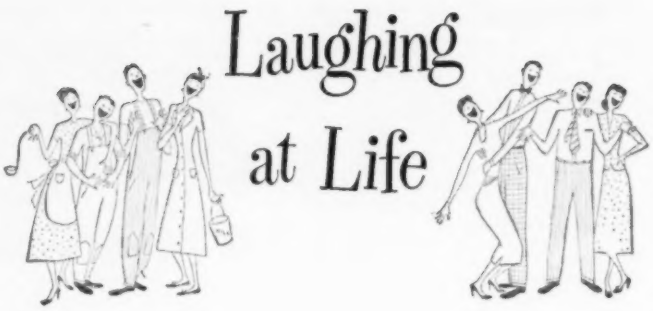


Face Red?

Many men have pet names for their wives. The Milwaukee district attorney sometimes refers to his wife as the secretary of war. No offense intended, and his office employees and friends understand these playful references in the spirit they are meant.

Not so, however, a new secretary. The D. A., wishing to call home, thoughtlessly told her to "Get me the War Department on the phone." A few minutes later, the secretary tapped on his office door and said timidly, "Washington is on the line, sir."

Signs That Smile

The name of a cafe in Los Angeles is "Mother's Filling Station."

Sign on an Oklahoma highway: "White Washed Potatoes for Sale."

Printed on the wall of a Los Angeles restaurant: "Fine Foods Severed."

Sign on an Oregon highway: "Don't Get Stung—Buy My Honey."

Seen on a New Jersey garbage truck: "Used Vitamin Department."

Sign on a huge transportation van: "We're interested in your every move."

Classified ad in a Wyoming paper: "Dishwater Wanted."

The Error of Our Ways
(Calls from the News Columns)

Good Money After Bad

The raises are for employees in both the high and low salary rackets.—*The Tampa (Florida) Tribune.*

It's the Truth That Hurts

This cream cheese decoration for open-faced pies tastes as dreary as it looks. —*New York (New York) World-Telegram.*

Scary Business

Mrs. E. F. of Stiles has enrolled in the fright training course at the Matrauers' Sky Ranch.—*Oconto Falls (Wisconsin) Herald.*

Fresh From the Flapper Era

The most clever costume was adjudged that of Mrs. B. J. M., a relic of the post-war era of 1920.—*Sioux Falls (South Dakota) Daily Argus.*

Not Quite Gone to the Dogs

For sale: Gorgeous tiny Peke pups; fringe trimmed, slightly soiled; reconditioned for satisfaction. Wrapped in cellophane and tied with a huge red bow.—*Fort Worth (Texas) Press.*

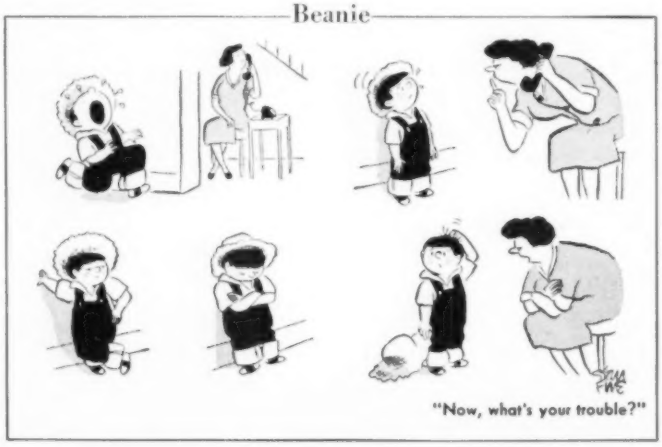
Emergency Plea

Wanted: Experienced girl to sew buttons on the fourth floor.—*Newburgh (New York) News.*

Something Rotten in Denmark

The Superior Court certified that the foregoing is a true and corrupt copy of grand jury presentments.—*Stewart-Webster Journal, Richland, Georgia.*

Beanie



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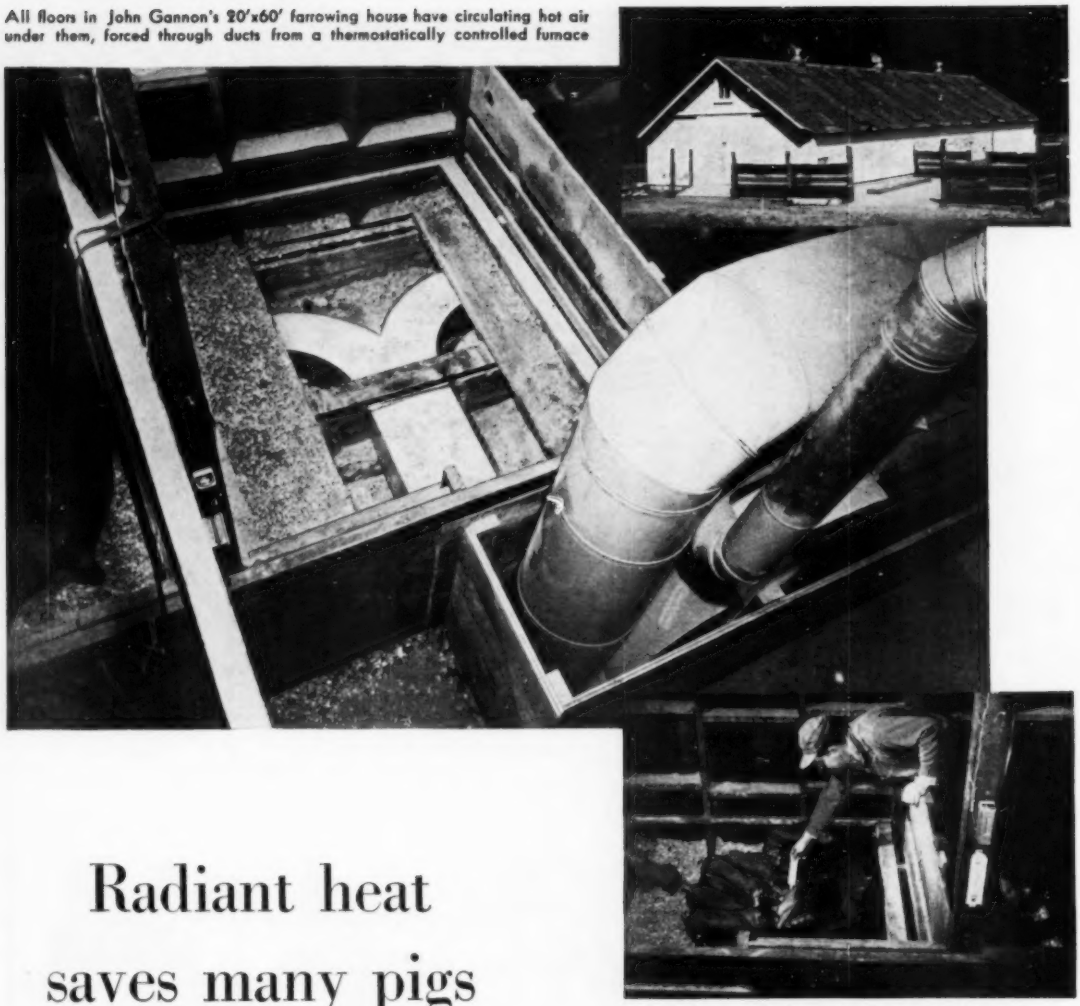
PEORIA 7, ILLINOIS

All floors in John Gannon's 20'x60' farrowing house have circulating hot air under them, forced through ducts from a thermostatically controlled furnace



Radiant heat saves many pigs

One way to save the early pigs is to keep them warm. This underfloor system works

By John Gannon

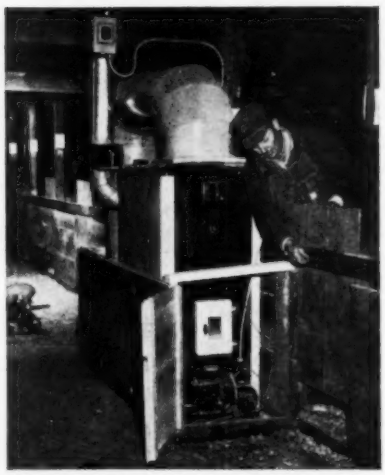
In raising early spring pigs, we used to have trouble keeping our sows warm enough in extremely cold weather. By using heat lamps, we could keep the pigs warm enough *if* they would stay under the lamps. But shooing them back under took extra labor and many trips to the hog house.

To overcome the problem in our hog house, we installed an oil furnace with automatic controls. It forces hot air under the hog house floor.

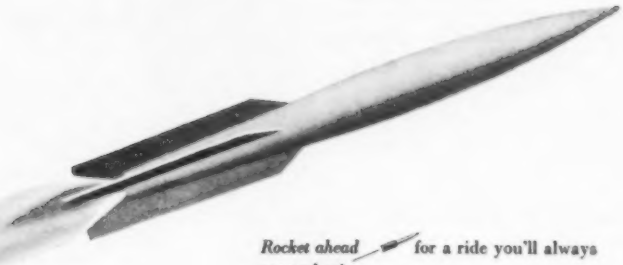
This hog house is a double house 20'x60', with 20 pens. We built it for a granary in 1940 and at that time had 7,400 bushels of corn sealed in it. In order to hold this much corn, we had used 2x6 studding and extra-strong construction all the way through.

The 7' concrete driveway [*Turn to page 160*

John's system puts the heat where his pigs need it—down on the floor. It helps keep the bedding dry, too



A regular oil furnace puts out the heat and does its job for only a nickel an hour for the whole house



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Rocket ahead for the ride of your life!

Rocket ahead . . . with Oldsmobile!

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Compressor, pressure tank, air gauge, air chuck, 20-ft. hose, pop valve, copper tubing with 4 brass flared fittings for connecting compressor to tank, 4-way cross and 3 nipples. COMPLETE OUTFIT, wt. 52 lbs. $32.50

Equipment less Compressor, $12.50

Compressor has 2" bore, 1½" stroke, ball bearing, 3.27 CFM at 600 R.P.M. Capacity up to 6.54 CFM. Size 9" x 11⅞" x 6⅝". Wt. 26 lbs. Ideal for spraying paints, insecticides, etc., inflating tires, operating air tools, and other uses. All new equipment. U. S. government surplus. Replacement parts available. Amazing buy. Don't miss it.

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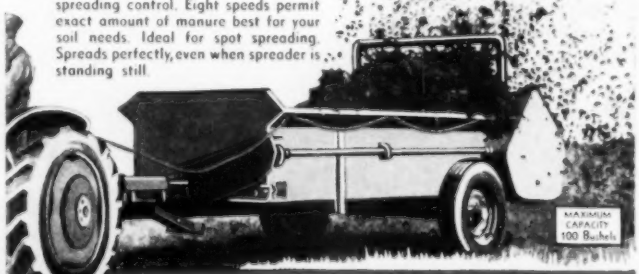

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☐ 31-A, Dump Wagon ☐ Utility Wagon Boxes
☐ 21-A, Hi-Speed Wagon ☐ 2-Wheel Trailer
☐ 2-Wheel Tilting Platform Wagon

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Radiant heat saves many pigs

[*From page 158*]

of the former granary now serves as an alleyway. On either side of this drive we had built a floor of 2x12 planks running from the edge of the drive to an 8" pier down the center of the crib floor—and from the pier to the outer wall. The 2x 12's supported the corn load very well.

This design for the former crib suited our hog house ideas to a T. We now use the 11" deep spaces under each plank floor—divided as it is by the pier—for a hot air duct and a return air duct.

We set the furnace in the center of the hog house lengthwise and to one side of the alley. And we tunneled under the driveway, so we could get air to and from

> **A family tree is a device for tracing yourself back to better people than you are.**
> —*Herbert V. Prochnow*

the other side. These air ducts on both sides are 7"x16" rectangular metal ducts to the outer chamber, with bends on each end (see photograph, page 158) to force the air in both directions.

We cut a hole in each end of the 8" pier walls so the air could return to the furnace through the inside area (or channel) between the alley and the inside surface of the pier. From there, it goes to the furnace, is reheated and recirculated. This cuts fuel cost. As we have explained above, the duct system is the same for either side of the house except that one set of ducts has to run under the center alley in order to set the furnace cabinet to one side.

About the only trouble we ran into was the shrinking of the plank floor. This allowed the bedding to sift between the cracks in the floor and to drop down into the air duct. We overcame some of this by tacking a strip of metal on the underside of the planks to hold what sifted through, and finally filled up the cracks.

We use wood shavings for bedding in our farrowing house. This acts as an insulator on the floor and prevents the cold air in the house from taking heat away from the floor. The result of this was interesting: We lowered the house temperature, the average difference being 15 to 20 degrees warmer on the floor than the rest of the house, depending on how hot we were running the furnace. The hotter the furnace was, the greater the difference between the two.

We took temperatures of air above several litters of pigs, and it seemed to run around 70 degrees. Using this as a guide, we maintained a 60- to 65-degree floor temperature. The house temperature (taken about 4 feet above the driveway floor) would run around 40 to 45. This seemed to be about ideal for the pigs. It seemed warm enough, but not too warm on the sows.

Our sows were 18 months old, and 12 sows had a 9-pig average at 4½ weeks old. The loss from lying on pigs was almost eliminated. The house has guardrails on three sides of each pen. I think we lost two pigs from crushing.

The operating cost seems to be cheaper than heat bulbs. The bedding seemed to be dry practically all the time.

For comparison, here are some of the temperatures taken:

Outside	House	Pen
14°	45°	67°
0°	40°	64°
18°	45°	63°
14°	50°	70°
20°	50°	65°

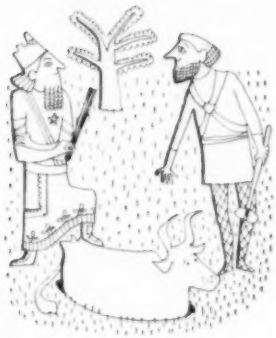
For a 12-day period, from February 16 to February 28, the furnace used 95 gallons of fuel oil. This was 8 gallons per day, or $\frac{1}{3}$ gallon per hour, or around 5 cents per hour.

We like this method of heating, because the entire floor is heated. The pigs are in an even heat and can move about the pen and still be warm. The sow will not try to pile up the bedding if she is comfortable and out of a draft. This system of heating ends all draft in the house. The heat is evenly distributed.

You have to be careful not to overheat pigs. When the time comes to move them out to clean pasture, the difference in temperature might cause flu or throw the pigs' systems off. I have observed that when the temperature gets above 70 degrees the sows seem to be uncomfortable and somewhat restless.

I believe this system of heating is going to pay off in large returns on February and March pigs. Early pigs cost more to start, but in the long run they get to market early, ahead of the fall rush. And in some years this has made a great difference in our profit from hog raising. **END**

Why you say it!



The widely used colloquial expression, *the ox is in the ditch*, originated before the beginning of written history.

Ancient Hebrew law included a very strict prohibition of labor on the Sabbath. The chief work animal of the time was the ox, whose clumsiness and stupidity frequently led to trouble. The countryside was full of drainage ditches and shallow wells, and adventurous oxen often fell into them.

Consequently, from sheer necessity, the householder frequently had to rescue an animal on the Sabbath. The legal code therefore made it permissible to do Sabbath-day work occasioned by an ox having fallen in the ditch.

Other emergencies sometimes arose, such as the necessity of gathering grain or hay on the day of rest. The farmer, in such instances, would wink broadly, say "The ox is in the ditch," and go about his work.

As an excuse for action prohibited by the conventions of society, the phrase has spread over the world.—*Boyd G. Wood.*

Now...Ful-O-Pep Pig Starter gives your pigs NEW GROWTH-POWER!

New APF plus nourishing rolled oats in Ful-O-Pep helps make pigs weigh up to

50 LBS. AT WEANING!

Mm-m! U-m-m! What a pig feed! *Dependable* Ful-O-Pep Pig Starter . . . loaded with *NEW GROWTH-POWER!*

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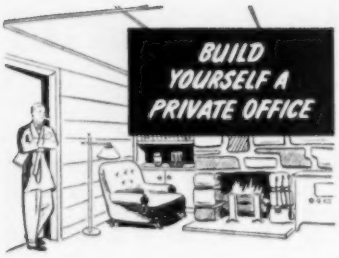
So this year, start your baby pigs on Ful-O-Pep Pig Starter. Your neighbors will marvel at your *big pigs at weaning* time. Just see your local Ful-O-Pep Dealer today!



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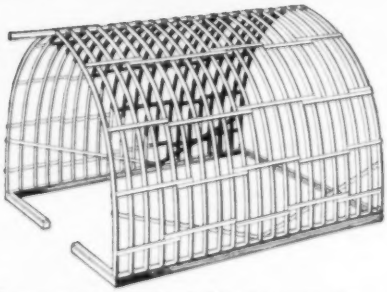

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Need water in the pasture?

Give new life to old springs!

Bringing dead springs and pasture brooks back to life is one way of providing water with no pumps or pipe lines to maintain.

One New York State spring, which had been dry some years, was brought back to life with a bang. Its flow was actually *increased* to the point where it maintains a pond more than an acre in extent and 16 feet deep, the year around.

District Forester C. E. Baker of Norwich, New York, who directed the job, says any farmer can do the same at very little expense. In most states, the forestry and conservation departments are glad to cooperate by supplying trees and information on how and where to plant them.

This revived spring is about 35 miles south of Utica. It is part of a 7,500-acre tract the state took over in 1930. It originally was settled by hard-muscled pioneers who cleared the land too well. Mostly clay and hardpan, the soil eventually proved too poor. Streams and springs gave out as the treeless meadows and pastures were exposed to alternate washings and sun blisterings.

The state had to take over in 1930. Forestry crews moved into the area, bringing millions of spruce, pine, and hardwood seedlings. Setting 1,000 trees to the acre, the forestry men made the spring the center of the first planting.

> **The churches are the greatest influence in this world of ours to overcome the present tendency toward greed.**
> —*Franklin Delano Roosevelt*

The spring wasn't long in coming to life. Today, 20 years later, it is the source of a year-around stream large enough to maintain the one-acre pond and to keep water running over the spillway. There are some fine brown trout in the pond, too. The trees that did the job are now from 4 to 6 inches through. The duff of pine needles underneath is from 6 to 8 inches deep. Dig into the clay and hardpan soil anywhere, and you will find it loose and spongy.

Forester Baker says there is no excuse for letting pasture springs or brooks go dry. Farmers can get seedlings for almost nothing. Many states not only provide them free, but will help with the planting and planning. Your county agent or state college can tell you about it.

And there is more to it than just bringing back the water. If you plant spruce, in 8 or 10 years you will have Christmas trees to sell. Larch and tamarack produce fence posts in that same short time. Red pine is pulpwood in 18 years and good-size saw logs in 50 years. Thinnings make marketable small stock for boxes and crates of all kinds.—*Dewey J. Carter.*

Answers to farm quizbox

[*From page 103*]

1. (a) is correct. Dr. Richard C. Cabot in his book, *The Art of Administering to the Sick*, reports this to be true.

2. (a) is correct. Surveys show that about 37 of every 100 Americans have blue eyes; 26, gray eyes; 18, hazel eyes; remaining 2 percent cannot be classified.

3. (a) is correct. Heaviest person on record was Miles Darden who weighed over 1,000 pounds when he died in 1857.

4. (b) is correct. Svea is wrong. Homely parents do have attractive children.

5. (a) is correct. J. Macqueen in his book, *Nature Study Talks on Animals*, reports a horse lifts its legs in 1,3,2,4 order in a walk; 1,3,2,4 in a trot; 1,2,4,3 in a gallop.

6. (b) is correct. U.S.D.A. states that about 400 pounds of blood go through the udder for each pound of milk output.

7. (b) is correct. Memory is a function of the whole brain, according to Robert G. Whalen, writing in the *New York Times Magazine*.

8. (b) is correct. U.S.D.A. would agree with Jussi. High-producing cows may or may not have easy-to-see milk veins.

9. (b) is correct. George Washington died of a streptococcic infection of the throat after the described treatment.

10. (a) is correct. Average American does consume this amount of corn in food each day, reports the Corn Industries Research Foundation.

11. (a) is correct. U.S.D.A says striking a cow will make her kick more.

12. (a) is correct. Norbert Wiener, world-famous mathematician, announced existence of such an instrument at a 1949 meeting of the American Association for the Advancement of Science.

13. (c) is correct. U.S.D.A. reports that geese may be used as breeders for six to eight years.

14. (b) is correct. In winter, flies don't eat and don't move until a warm day stirs them to search for food.

15. (c) is correct. Damascus, Syria, is mentioned in Egyptian records as early as 4,000 B.C., reports the Compton Encyclopedia.

16. (a) is correct. Betatron healed cancer of 72-year-old Fordyce Hotchkiss.

17. (b) is correct. Pediatricians report that colds in babies under 2 weeks of age are practically unknown.

18. (a) is correct. Most studies credit apes as being best animal thinkers.

19. (b) is correct. From virus which attacks when resistance is low.

20. (a) is correct. One TV station in Washington, D.C., was televising a two-hour program once weekly in 1929. END

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Here's the best way to cut strap iron

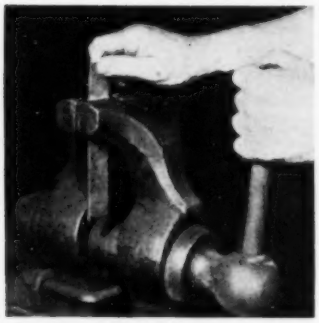
1 First, mark the strap iron where it is to be cut. This system will work equally well on square or angle cuts, and it is accurate

3 With cutting edge of chisel even with vise top and at a 45-degree angle from face of strap, make a deep cut from each edge

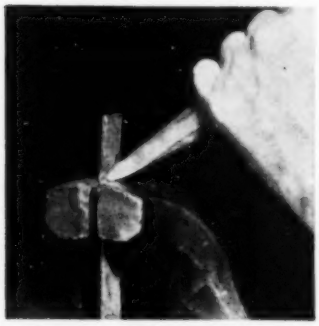
5 When the cut is deep enough, a light tap with hammer will break the iron. A good, heavy vise and hammer are needed

It's easier to cut strap iron with a cold chisel than with a hack saw. Try this method and you'll find the job will be neat and quickly done, too

By Richard W. Hufnagle



2 After marking, place strap iron in a heavy vise, with the mark for the cut just at the top edge of the vise jaw. Then tighten



4 Then cut evenly across flat part of the strap, making cut about half as deep as the iron is thick. Keep chisel even with vise

6 The result is a neat, clean cut, quickly made. You can keep this cut right on the line you marked. You'll find it easy. **END**

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This pile of dirt (1½ pounds) was taken from an AC "ALUVAC" Element after 5000 miles of normal city driving. Analysis disclosed 12 kinds of dirt, metal bits, asphaltene, grit, etc.

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"Dirt-Proof" your engine oil. Whatever make of oil filter you have, install an AC Filter Element—the kind that gets *all* the dirt. If you have no oil filter, an AC Filter will save its cost quickly, in fuel, oil, and lower repair bills.

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Dust is picked up from the road. Metal particles wear off of moving parts. Oil spray oxidizes in the crankcase. Soot and water are produced by burning gases, some of which blow by the piston rings. Water emulsifies with dirt and oil to form sludge. Heat may form gum and varnish. "Dirt-Proof" your oil as you drive, with an AC Oil Filter or Element.

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March garden tips

March reminds us that the door of a busy season is about to open. This is to say that gardening days are just around the corner.

In the vegetable garden. If your garden was not plowed last fall, be sure to wait until the soil is workable before plowing this spring.

If manure is applied in spring just before the garden is plowed, use only rotted manure. Apply it at the rate of 500 pounds to a 20x50-foot area. After the manure is applied, broadcast 10 pounds of 20-percent phosphate per 20x50-foot area; then plow the garden. After plowing and before discing, broadcast a 10-6-4 complete commercial fertilizer at the rate of 15 pounds to every 20x50-foot area. This discing will mix the fertilizer in the top 3 to 4 inches of soil. If 4-12-4 fertilizer is used, apply at the rate of 20 pounds per 20x50-foot area just before discing.

For those gardeners who plan to grow their own tomato, pepper, eggplant, and cabbage plants, here are a few reminders: Treat the seed to control seed-borne and soil diseases. A good soil for the seed flat is a mixture containing equal parts of black, rich garden loam and sand. Don't start the seed so early that the plants will be ready for transplanting before the proper date to set them out arrives. Check the date of planting in your locality; then determine when seeds should be planted.

Allow approximately 7 weeks for tomatoes to grow from seed to the transplanting size. This is 3 weeks from seeding to pricking off and about 4 weeks from pricking off until time for planting. Germinate seed and grow seedlings in temperatures of 70 to 75 degrees.

Peppers and eggplant require a total of about 9 to 10 weeks before they are ready to set in the garden. Allow 4 to 5 weeks from seeding to pricking off and then 5 weeks more growing time. Germinate seed and grow in temperatures of 70 to 80 degrees.

As soon as the ground is workable, your cabbage plants should be planted outdoors. If you are troubled with cutworms, don't forget to make a cardboard collar for each plant. To give them that extra boost to overcome shock of transplanting, use a starter solution. To make such a solution, dissolve 1 tablespoonful of ammonium nitrate in 1 gallon of water. If you use a complete commercial fertilizer, use 3 tablespoons in a gallon of water. Use a cupful of either solution for each plant as it is set out.

Among the flowers. Perhaps the first thing to consider is the removal of all dead tops on those perennials which you didn't get pruned last fall. If you are *sure* they were not diseased last summer, put them on the compost pile. Otherwise, burn them, which, in any case, is probably the safest thing to do.

Thinking about removing the mulch

from the perennial borders and rose beds? Think carefully—if you sometimes have sudden blizzards in your area as late as March, proceed with caution. If mulch is removed, keep it handy for a week or two just in case you have to put it back on in a hurry.

Gladiolus lovers, have you tried this? To get the jump on your neighbors and to be the envy of friends, start some of the bulbs in pots indoors. Then when danger of freezing is past, transplant them to the garden. Select an early-flowering variety for this trick.

Don't forget those annuals you want to grow this coming summer. Start them inside about 8 weeks before it is time to put them outside. On your annual list you will want some of the following: Asters, ageratum, cosmos, zinnias, phlox, salvia, verbenas, and gaillardias. You may have other favorites.

Around the lawn. A small investment in fertilizer and some regular care this year will pay real dividends in lawn beauty.

First, rework and seed down any bare spots. As the seedbed in these spots is prepared, work in a complete commercial fertilizer. Use a 10-6-4 at the rate of 1 pound per 10x10-foot area, or a 4-12-4 fertilizer at 1½ pounds per 10x10-foot area. Use a seed mixture adapted for your area.

Next, reseed all thin spots; then uniformly apply a top-dressing of commercial fertilizer to your whole lawn. If you use ammonium nitrate, apply ¼ pound per 10x10-foot area, or apply a 10-6-4 fertilizer at 1 pound per 10x10-foot area, or a 4-12-4 fertilizer at 2 pounds per 10x10-foot area.

Shrubs, trees, and fruit plantings. Shrub pruning is on the schedule for March. This pruning is best done just before growth starts. Remember, don't prune the spring-flowering shrubs now unless you are willing to sacrifice some of this spring's crop of flowers. However, late-flowering shrubs such as althea, hydrangea, and hardy shrub roses should come in for their pruning now.

It is time to take the saw to the tree limbs that were broken during the winter's snow and ice storms, and the too-low-hanging limbs should come off now. If you find it difficult to locate the smaller dead limbs, wait until the buds break to prune them. Make all pruning cuts flush with the trunk or limb. On twigs and smaller branches, cut back flush to a side branch. Paint wounds larger than 2 inches in diameter with a good-grade tree paint.

Watch your strawberry plantings. As danger of thawing and freezing is over, start removing the mulch. Uncover the strawberry plants gradually, not all at once. Finally, leave a light layer of straw among the plants to hold the berries off the ground when they appear. Pull the mulching material between the rows; this gives a heavy mulch to the middles to hold down weeds and also helps to retain moisture.

Check all your fruit trees and other woody plants for scale insects. If present, be sure to apply a dormant spray to control them. Use either liquid lime-sulfur (2 cupfuls per gallon of water) or a dormant oil (½ cupful per gallon of water). Wait until after danger of freezes to spray, but do it before the buds swell.—*A. E. Cott, Iowa Extension Service.*

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it gives you both QUANTITY and QUALITY

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New disease and bug-resistant varieties from Exp. Stations. Eyes scientifically cut from *Certified Stocks*. Specially treated. Enormous yields reported. Guaranteed to reach you in growing condition. *Mailed at planting time*
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GLADIOLUS
Gladiolus are scarce so act now to get these wonderful GLADIOLUS BULBS at less than 2c each! Assortment from flaming reds, yellows, purples, blues, pinks, whites, peach, multicolor, etc., now ready for first blooms and with many years of flowering ahead. Any bulb not developing first planting replaced free. Tremendous saving in these young virile bulbs already 1½" to 2¼" in circumference. Truly an unbeatable offer. Order now on approval.
SEND NO MONEY
When your carton of 100 Gladiolus bulbs and 3 extra Tuberoses arrives pay postman only $1.69 plus C.O.D. postage. Remember, these bulbs must develop to your satisfaction or your money will be refunded. But hurry! Send in your order today. This is a bargain you'll hate to miss.
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See Catalog Page 33

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BERRY'S are the first to offer sensational new chemical treatment for Clover, Alfalfa and other grass seeds! Assures better stands from lighter seeding. See Catalog.
BUY DIRECT
For guaranteed quality and savings, 100 varieties finest farm seeds, also garden seeds and nursery stock. BIG seed guide FREE.

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Contains about 25% Alfalfa Seed. Chemically treated. An extra value!

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Fringed or Notched Blooms Supreme Florists' Strain. "The Handsomest Frilled Petunia in the World." Large, rich colored blooms in every conceivable shade on stately plants. 150 Seeds, Regular 50c Packet, ONLY 10c with Big New Seed, Plant and Nursery Catalog. FREE CATALOG
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Large healthy 3- to 4-year-old, 6- to 14-inch trees, 10 ea. Blue Spruce, Norway Spruce, Red Pine, Scotch Pine, Mugho Pine. Sent postpaid at planting time. Evergreen catalog, write Box 23-C.
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A **home planning service** tailored to farm living is being offered by one store near you. See page 62.

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Powerful Gas Tractors for Small Farms, Gardeners, Florists, Poultrymen, Fruit Growers, Suburbanites.
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A COMPLETE LINE OF HAND AND POWER MODELS

If you judge a power mower by performance, handling ease, durability and economy, you can expect and get the best in an Eclipse. Eclipse power mowers are designed and built with specialized experience of half a century... have the outstanding and exclusive features that add up to unequalled value. See Eclipse power mowers at your nearest dealer. There's a model just right for your grass-cutting requirements.

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"Everything's easier—from washing my car to keeping my milk checks up," says Phil Huston of Meriden, N.H. "and my Goulds Balanced-Flow Jet gives us the most *economical* water service I ever heard of!" Rural owners everywhere are enthusiastic about the Balanced-Flow unit. It's the amazing *tankless* water system, with exclusive self-adjusting capacity. It delivers any amount of water at one or more outlets at the same time (up to 540 gallons an hour)—with no spurt, no lag. It's trouble-free and low-priced!
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BE SURE TO GET A PUMP BIG ENOUGH
For more water, see Goulds famous Jet-O-Matic units... Goulds 102 years of experience guarantees the right pump for *your* needs.
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Please send details on your pumps and name of nearest distributor. I have:
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NAME .....
ADDRESS .....

Flying news for farmers

[*From page 30*]

at either end. The sod on the strip is firm enough to hold any of the light planes of today.

Leveling off the field was hardly necessary beeause the acres of Wayne's seed farm roll gently. This type of strip could be installed on any farm that could afford the length. Wayne has enough land left on the north end to extend the strip several hundred feet.

The hangar is located at the extreme south end of the landing strip. It is constructed in a T-shape to fit the outline of the plane. Two doors, of the roll-away type, form the entrance to the space used

> **The heavens declare the glory of God; and the firmament showeth His handiwork.** —*Psalms 19:1*

by the fuselage of the airplane. When these doors are rolled out of the way, two drop-type doors are lowered, exposing slots in the front wall for the wings. To quote Wayne, the hangar was "tailor-made" for their airplane. Cultivators and other low-outline tools are stored under the wings in the hangar, which makes this building really dual purpose.

Although the Marshalltown airport (Neiderhauser Field) is only two miles away, Wayne and Bob are very happy to have that strip in their own back forty. The traffic problem at airports is eliminated in having it so. When coming into a field for a landing, as all pilots know, circling the field in the traffic pattern consumes a few minutes time. Then, too, the time getting from the airport to the ultimate destination—in this case the farm—is quite a factor in the planning of a completed trip. All of which demonstrates the fact that the farm flyer is most fortunate among all air-minded people today because of his location.

Of course, more fields like the Robinsons' are needed in every state to aid cross-country flyers in emergencies, as well as to serve as conveniences where no

> **Feel kindly toward everyone, but be intimate only with the virtuous.**—*Confucius*

city airport is available. In other words, every community needs a one-way strip to enable the present flying public to go everywhere they need to go by air, and the farms surrounding the community are the most likely locations for such strips.

Since we are almost into the grasshopper, chinch bug, and corn borer seasons again, Wayne's opinion on aerial spraying for pest control was asked. He is very emphatic about the necessity for controlling the corn borer. Spraying has done a lot of good but enough hasn't been done, says he. Migration causes new pest populations between doses and offsets some of the benefits of spraying. This is especially true if one farm is sprayed and the adjacent farm is not. The damage is so great as to cause, in some cases, a total loss of the crop.

Bob is mulling over the idea of in-

stalling a removable spray unit in the plane and trying it himself. The safety factor of crop spraying needs improvement before every farmer can do his own. Even now the light-plane manufacturers are working, in conjunction with the Civil Aeronautics Authority, to develop an airplane for general farming use. In the very near future, many believe, these ships will be as necessary to the farm as a tractor or plow.

Pest control is not the only work that can be done by air. Large-scale seedings in soil conservation have already worked out very well. Fertilizing by air is also on the profitable side of the ledger. Weed control is very easy when done by air.

> **When a man lives with God, his voice shall be sweet as the murmur of the brook and the rustle of the corn.**
> —*Ralph Waldo Emerson*

Wayne and Bob are well aware of these things. Any development that speeds work and increases the quality of their yearly crops of certified seed interests them. And they, like all farmers, have enough machinery know-how to be able to keep their flying gear in tiptop shape.

●

Let 20 years of flying experience warn you pilots and future pilots that an instrument panel full of instruments does not warrant flying in the fog. Until you are thoroughly qualified to fly under those conditions, stay out of the clouds. Too many of our student pilots and even private-licensed pilots have stretched their luck where their experience feared to tread. We like you, so stick around a while longer! **END**

Support your Red Cross campaign

1950 FUND

Farm people have long been one of the most important groups of voluntary contributors to the American Red Cross, and their response to this year's campaign is expected to be as generous and wholehearted as ever.

The 1950 fund campaign begins March 1 and continues all month. Your early support of your community's campaign will reflect the pioneer spirit of helpfulness which is an American heritage.

The Red Cross program, known to all of you, is extensive and nationwide: disaster relief following storms, fires, floods; blood banks; safety education; nursing activities; service to the armed forces, veterans, and their families. Through your voluntary gifts during the March campaign, you'll be helping your neighbors and friends if disaster strikes. **END**

NEXT FALL, PRODUCE
MORE CORN!
This FREE Fertilizer Guide Will Tell You How

SURE! You can step up your corn harvest next fall. Last year, thousands of farmers increased their yields 40%, 50% and even more—simply by using the RIGHT fertilizers in the RIGHT way. To learn just what you can do with good fertilizers, and HOW to do it, get this helpful Corn Fertilizer Guide AT ONCE, as a gift from Spencer Chemical Company, manufacturers of Spencer Ammonium Nitrate Fertilizer. Don't waste time. Clip the coupon now!

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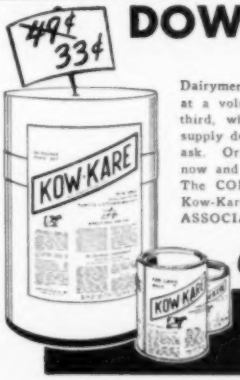

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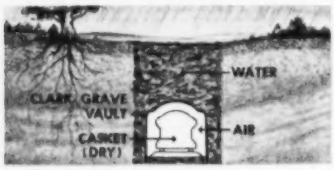
before and after Calving
add **KOW-KARE**

THE PEACE OF MIND YOU SEEK, *when you have lost someone dear, comes in many ways. And surely one of them is the knowledge that you have provided the finest tribute . . . the most trusted protection against water in the ground.**

***THE CLARK GRAVE VAULT** provides the trusted protection that only a vault of *enduring metal* can provide. It is scientifically designed to keep water from rain and melting snow from reaching the casket over which it is placed. A vault improperly engineered obviously cannot do this. *Neither can one that is porous.*



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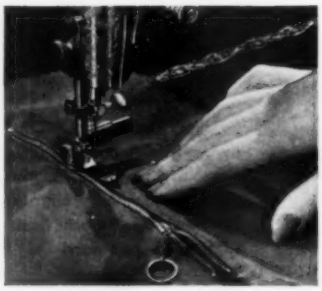
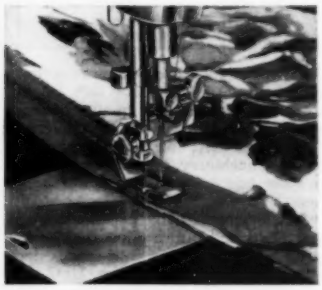
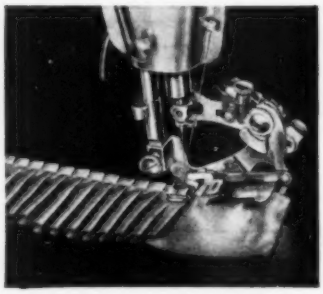
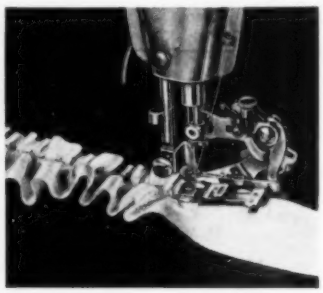
They are easily put on your sewing machine and with them you can achieve the professional look and the smart touches in your home sewing



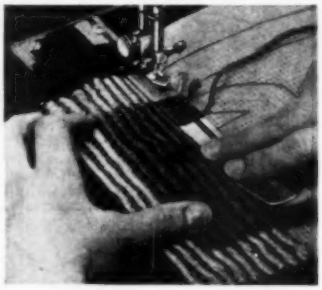


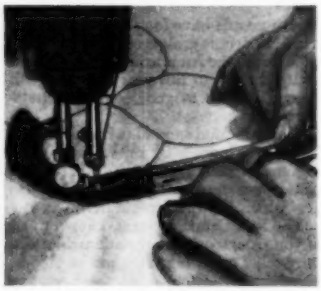
This zipper foot stitches along either side of slide fasteners (left). As it sews, it leaves enough space between the metal and the stitching so that the fabric will not catch in the zipper when it is opened and closed. Although this foot can be used also for cording (right), you will find a regular cording-foot attachment available, too



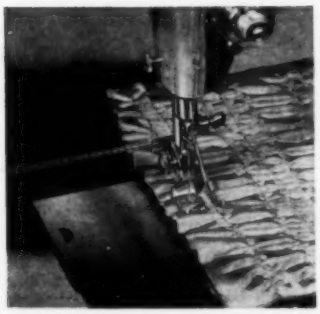


The ruffler is a practical gadget for adding fashionable touches to lingerie, blouses, dresses, and collar and cuff sets. It will make ruffles, gathers, pleats, and tuck shirring, stitching them to the garment at the very same time. A sliding guide insures an even margin on the gathered pieces and on the material to which they are sewn, as well

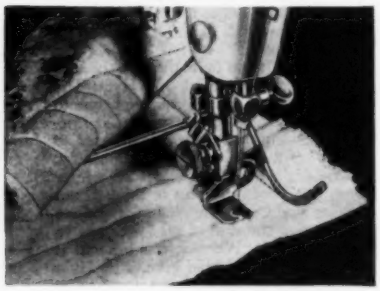




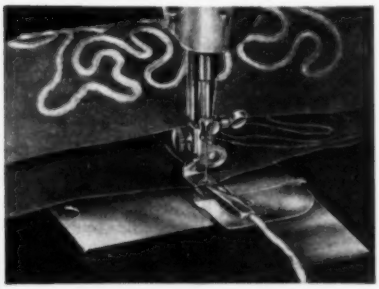
A craft guide used with the sewing machine helps to make rugs from rags, old stockings, and yarn. The pile of the rug can be long or short, cut or uncut. This guide easily sews on trimmings such as self-trim, insets, fringes, and bands of yarn. Left, the guide is used for making an attractive rug; right, for attaching trims effectively



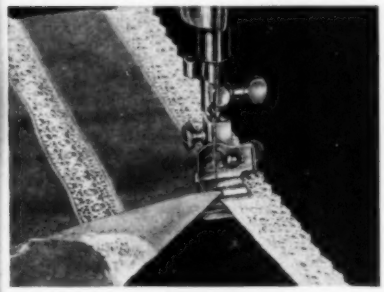
With shirring attachment, rows of shirring can be sewn with even spacing. Dirndl skirts, smocking, and other soft, attractive fullness can be produced with it



Quilting can be done with a sewing machine and the quilter attachment. It applies a quilted finish not only to quilts, but to housecoats, collars, skirts, also



Braiding is stitched invisibly on the wrong side by the underbraider. Braid designs such as scrolls and initials are done easily and well by this attachment



The edgestitcher is an aid in sewing straight-edge lines. Making French seams, sewing lace strips together, and applying bias folds are a few of its uses

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All your deepest feelings, all your finest impulses, find expression in familiar symbols – a wreath of laurel, the symbol of honor; the Cross, symbol of The Resurrection.

In that finest of all expressions of sentiment and devotion – the family monument – Rock of Ages speaks with true significance, carrying your message of love and honor, of hope and inspiration, not only to the living but to generations yet to come. For in your choice of a Rock of Ages Family Monument you are assured of lasting beauty and eloquence – an assurance backed by a bonded guarantee to you, your heirs, or descendants.

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In addition, Clorox makes your linens sanitary. It deodorizes, removes stains, too! If you're not at present a Clorox user, we suggest you try it. Clorox has the approval of millions of housewives. It's the brand more people know, and buy!

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HOT WATER —plenty of it!

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Install it anywhere . . . it's *safe* . . . no flame, no flue, no fumes!

Completely automatic—hot water when you want it!

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The instant you apply Dr. Scholl's Zino-pads, painful shoe friction stops, pressure is lifted. And no corn-removing action known to Medical Science is faster than Dr. Scholl's. Get a box today! At Drug, Shoe, and Dept. Stores.

Dr. Scholl's Zino-pads

For friendly help with your building, furnishing or decorating problems, visit the store nearest you offering **Successful Farming's** home planning service. Stores are listed on page 62.

SORE MUSCLES?

When muscles are stiff and sore from unusual exercise or strain, use HEET®, the liniment that's *strong* yet does not burn the skin. Wonderful relief from muscular soreness comes as comforting HEET quickly starts to *penetrate*. Just brush it on with the applicator. HEET starts at once to ease muscular pain and *keeps on* working for hours, warms and soothes the painful area.

The PLAY

Where Playfellows

Mr. Hyla's new suit. Mr. Hyla, the tiny tree frog, was getting restless. Spring was just around the corner. He knew, for the alders were already shaking out their feathering tassels and a warm, damp March wind was blowing from the south. The time to move was coming—Mr. Hyla felt it clear down to his tiny toes. That very night he packed his knapsack and left his snug winter quarters. He crawled out from behind the thick tangle of ivy vines that grew beside the moss-covered brick wall of the farmhouse and traveled down to the old millpond to swim and soak.

How nice it was to lie there in the still, shallow water, thought Mr. Hyla. The dull winter suit he was wearing began to split at the seams. You see, he was growing a new suit and the soaking helped to loosen the old one quickly and painlessly.

Mr. Hyla had been silent all winter long. But now, he began to think about singing again. He made his singing noise by inflating the skin of his lower jaw to form a bubble. When it was inflated it looked just like bubble gum. Mr. Hyla was proud of his voice, and though he was hardly larger than a man's thumb himself, his "Peep-Peep! Peep-Peep!" could be heard for nearly a mile on a warm, clear night. Through the stillness, it sounded just like fairy bells.

He thought about singing as he lay soaking and swimming among the pondweed roots and the slender eelgrass. But, as yet, he was too lazy—he just wanted to rest and rest and rest.

Then one day, all of a sudden, "Pop!"—off went the old jacket. And after a breathless moment, up on the bank hopped Mr. Hyla wearing a brand-new suit. It was a shiny bright green, peppered with black polka dots across the vest. "Dear me, how fine I am!" thought Mr. Hyla, as he looked at his reflection in the millpond mirror. And he was so happy, he began singing right away—"Peep-Peep! Peep-Peep!"—*Mary A. Baker.*

Fun for little cooks

Here's a tasty treat for a cold, windy March day when you have to play inside: **Crunchy Chocolate Drops** are old favorites of ours—umm, they're good! And so easy to make that Mother doesn't have to help a bit. If you like chocolate as well as we do, we know you'll have a wonderful time licking the pan when you've finished mixing these cookies.

To make about two dozen **Crunchy Chocolate Drops,** you will need **½ pound** of **chocolate chips** and **2½ cups** of **crispy, dry cereal flakes.**

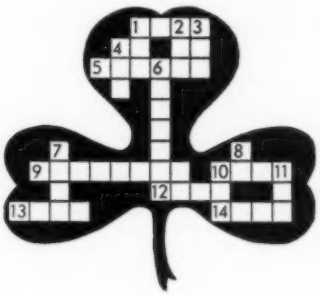
Melt the chocolate chips in a small saucepan, over a low fire. Stir the chocolate slowly.

HOUSE

meet every month

Pour the cereal flakes into a mixing bowl and cover them with melted chocolate.
Stir the chocolate through the cereal.
Drop the cookies from a teaspoon onto a cooky sheet covered with waxed paper.
Chill one hour in the refrigerator. That's all! And how you'll love these delicious cookies.

March crossword puzzle: There are 17 words in this brain-teaser. Try it!



Across

1. mud
4. Father
5. rug
9. green leaf, an Irish symbol
10. stop!
12. you fly this in March winds
13. not on time
14. darn

Down

1. auto
2. dined
3. still
4. dish
6. Irish saint whose day you celebrate each March 17
7. talk
8. Mother
10. turned-up edge of dress
11. boy's name

Answers:
(Across) 1. clay; 4. pa; 5. carpet; 9. shamrock; 10. halt; 12. kite; 13. late; 14. mend. (Down) 1. car; 2. ate; 3. yet; 4. pan; 6. Patrick; 7. chat; 8. ma; 10. hem; 11. Ted.

A family game. On some chilly March evening, suggest this simple good-time game. Divide the group into two teams—the Lions and the Lambs. The Lambs must leave the room while the Lions think of a game-word that can be acted out. Such a word could be "kite." Keeping very still about the secret word, the Lions merely give the Lambs one clue; the clue must be a word that rhymes with the secret word—"right," for instance. The minute the Lambs think they've guessed the secret word, they must re-enter the room and act it out. If the Lambs are wrong, the Lions meet them with a shake of the head, and then the Lambs must go out to try all over again. If they're right, everyone claps and the Lambs become the Lions. END

The Pillsbury 4X FEED CLUB

By JOHN D. MARTIN

Many of you ask me "What makes the difference between success and 'bad luck', in raising pigs and baby chicks?"

I set out to find the answer, asking farmers, flock owners and many others who are in daily contact with feeding problems. Their replies vary in some details, but they all agree on one point:

It is what you do NOW—at this time of the year—that pays off in the fall.

1. **Give sows the best of care and good feed. Buy best-quality chicks from a reliable hatchery, where you know the breeding flocks have been properly fed.**
2. **Scrub, clean, repair and check farrowing houses, brooder houses and all their equipment. Make sure those babies—pigs and chicks—are clean, comfortable, protected, pampered!**
3. **Feed for best possible growth and development—with Pillsbury's Best, if you'd like a good suggestion. Pillsbury Feeds for pigs and chicks are highly specialized products. They have been very successful in the past, and are sharpened and improved for 1950.**

Right now is also a very good time to see your Pillsbury's Best Feed dealer. Ask him what's new in poultry nutrition. Tell him about your feeding plans for the season, and get all the information and advice you can from him. I think you'll find it well worth your time.

Tips from Feeders

$25 to Mrs. C. D. Church, R. R. 1, North Baltimore, Ohio, for her suggestions:

"Save time by using a new coal bucket to fill feeders with mash . . . A horseshoe dangling on a wire over a water fount will keep the birds off the fount and help you keep the water clean."

Congratulations, Schmidt Bros.!

Congratulations, also, to all other Pillsbury feeders for their fine showing at the International Livestock Show.

Schmidt Bros., of Delmar, Iowa, fed out more than 400 Angus in 1949, starting them all on Pillsbury's Best Calf Starter and later switching to Pillsbury's Best Steer Concentrate as a part of the finishing ration. They entered six loads at the International, with these results:

Grand Champion Carlot of the show, Champion Angus load, first in each of the light, medium and heavy classes, a second place and two third places.

Previously Schmidt cattle had consistently topped the Chicago market, three times setting all-time highs. The grand champion load brought $65.25 at the Show auction.

Left to right: Ted R. Matthews, Mt. Horab, Wis.; Mrs. Matthews; M. E. Pierce, A. & P. General Manager, Milwaukee, presenting "Chicken of Tomorrow" trophy to Mr. and Mrs. Matthews.

Pillsbury Feeder Wins "Chicken of Tomorrow" Contest

Pillsbury-fed broilers won the Wisconsin "Chicken of Tomorrow" contest recently for Ted R. Matthews, Pillsbury feed dealer at Mt. Horab, Wisconsin. The box of birds that won the trophy received Pillsbury 4X Broiler Mash from the start to finish. They averaged 4.34 lbs. at 12 weeks, and each had consumed slightly over 12 lbs. of feed.

THOUGHT OF THE MONTH

No race can prosper till it learns that there is as much dignity in tilling a field as in writing a poem.

—Booker T. Washington

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for every letter used in this column. Send us any practical ideas you have discovered on management, feeding and breeding practices.

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Feed and Soy Division
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satisfaction at harvest time

for extra profit

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For extra profits, use the good farming practices which cut unit costs of production and also give you fine quality crops and large acre yields. Use *International Fertilizers* as so many farmers in the Middle West do regularly for corn, pastures, grain and truck crops.

See your *International Fertilizer* Agent now. It's time to place your order so you can arrange to take delivery when your goods are ready. Then you will be assured of *International Fertilizer* for extra profit and *satisfaction at harvest time.*

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There's a store near you offering **Successful Farming's** home planning service. See page 62 for more about this service.

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2-Way Flat Bottom Ditcher

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How to build a gutter cleaner

Belt-type cleaners have been used for several years by some of you dairy farmers. The cleaner described here, developed at the experiment station by agricultural engineers of Pennsylvania State College, has been tested for two years. It provides a low-cost, simple device, easy to operate.

The machine lends itself to either homemade or commercial construction, as a self-contained unit. It consists of a belt, chute, winding mechanism, and power units. Manure is carried on the belt from the gutter, through the chute, to the manure spreader. So far, used belting has been used and has seemed to last quite well. The exact lasting qualities of different types of belts, in contact with manure acids, are still untested.

The chute should be as nearly level as possible, with a maximum slope of 24 degrees. It should be liquid-tight, and long enough to get the desired height to clear the spreader. The belt is wound on the 7" drum at the rate of about 12 rpm. You can arrange the speed reduction gears to come out at about this figure. A one-horse motor is ample for 15 cows, and may work all right for up to 20 cows.

When the belt is wound up on the reel, the motor is shut off, the clutch disengaged, and the belt is dragged back in place in the bottom of the gutter. It takes only about 2½ minutes to clean a 50-foot gutter and drag the belt back into place.

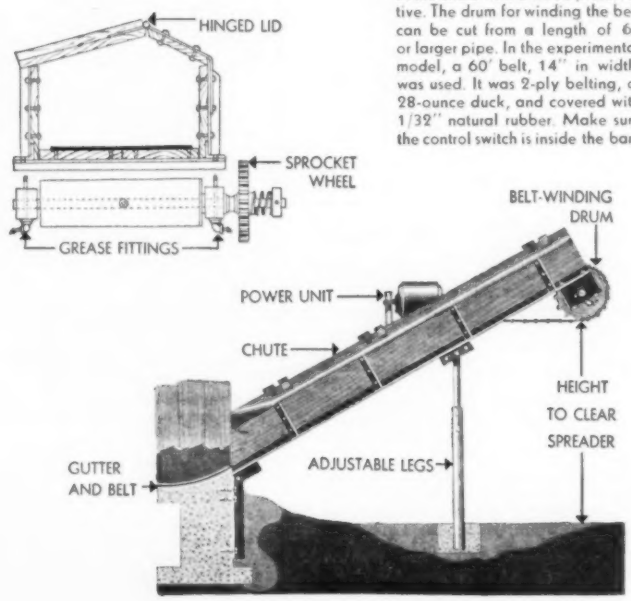
Variations of this plan will be necessary to fit your barn. It is believed a single unit should be used for each gutter. It may be possible, though, to have a belt for each gutter, and the chute and motor mounted on a track and used first for one gutter, then another. Or a line shaft, with one motor and two belts and chutes, might be the answer.

When the chute is level with the gutter, most all the liquid manure is easily carried out to the spreader. But the greater the pitch of the chute, the more necessary it is to use enough bedding to soak up all liquids. Experience has shown that the gutter must be level and not slope toward the chute. If it does, a pool may form at the base of the chute. Such an accumulation will not be removed satisfactorily when the chute is inclined, as the belt will lift and float over it.

The legs must be placed well back on the chute, to allow ample clearance for the spreader to be driven under the end of the chute. You can make these adjustable, as is shown in the drawing, or fix them permanently in place. A simply built, lean-to shed, covering the chute and the spreader driveway, will make the job more pleasant, especially if you haul manure each day.

Complete plans for building the gutter cleaner are available. To obtain them, write *E. H. Rohrbeck, Extension Editor, Pennsylvania State College, State College, Pennsylvania.*

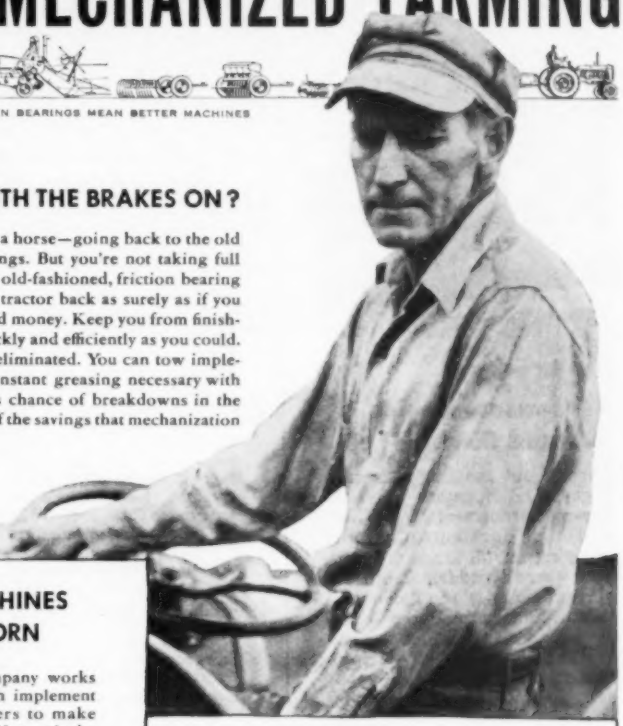
For longer life, treat the wood used in the chute with a wood preservative. The drum for winding the belt can be cut from a length of 6" or larger pipe. In the experimental model, a 60' belt, 14" in width, was used. It was 2-ply belting, of 28-ounce duck, and covered with 1/32" natural rubber. Make sure the control switch is inside the barn



TIPS FROM THE TIMKEN ROLLER BEARING COMPANY ON

Making the most of MECHANIZED FARMING

BETTER MACHINES MEAN BETTER FARMING...TIMKEN BEARINGS MEAN BETTER MACHINES



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You'd never think of trading your tractor for a horse—going back to the old back-breaking, slow-poke way of doing things. But you're not taking full advantage of mechanization if you're hauling old-fashioned, friction bearing implements back and forth. They hold your tractor back as surely as if you had the brakes on. Waste your time, effort and money. Keep you from finishing your disking, planting, harvesting as quickly and efficiently as you could. With Timken® bearings, friction is virtually eliminated. You can tow implements to work at full tractor speed. The constant greasing necessary with friction bearings is eliminated. There's less chance of breakdowns in the field, less time out for repairs. You get more of the savings that mechanization makes possible.

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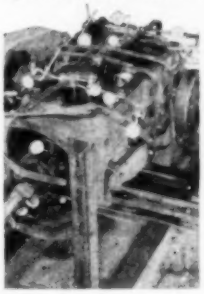

The Timken Company works hand-in-glove with implement and tractor makers to make your job easier. Not only by developing constantly better bearings but by helping in the design of allied parts. For instance, this laboratory device at Timken helps tractor manufacturers improve transmission designs by measuring strength and rigidity of gears, shafts and housings under full load.

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There's no limit to the ways in which mechanization can simplify your work, as many ingenious farmers are constantly finding out. To make it easier to carry a disk between his two farms, Hartzel Besgrove, Milford Center, O., built this handy carrier. The disk is fastened by two chains and cranked off the ground by turning the handle at the rear.

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By developing new and better machines, America's farm implement makers are constantly opening new opportunities for American farmers. You can make the most of mechanized farming by using machines that will do the most work and give you the least trouble. That's why it always pays to ask your dealer "Is it Timken equipped?" The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".

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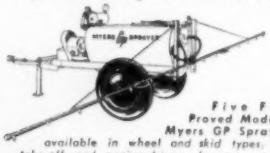

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Seed hay helps regrass eroded land

By forming a soil-holding mulch, this treatment assures good germination even on bare, badly washed hillsides

By H. A. Daniel and F. L. Duley
Soil Conservation Service

Nature one time had most of the land protected with grass and other thick-growing vegetation. As man destroyed this cover, severe erosion started.

The average soil loss from bare, hard, fallow land at the Red Plains Conservation Experiment Station, Guthrie, Oklahoma, during a 17-year period was 1,100 times more—and the runoff water 31 times more—than that from a Bermuda grass sod. This is convincing evidence that soil erosion could not have been a major problem when this country was covered with grass and natural mulches.

Many additional cattle could be supplied with pasturage if the millions of acres of idle, eroded, and unused land in the Great Plains were revegetated and developed. Grass, as a whole, re-establishes itself slowly under natural conditions on eroded land. But now, we have found that this process can be greatly accelerated by working *with* nature. The kind of vegetation and method of establishment varies with soil and climate.

The major problems to be overcome in regrassing eroded land are low fertility, poor physical condition of the soil, low available moisture, and poor biological activity.

If the low fertility is due to lack of minerals, they must be supplied by the addition of limestone and commercial fertilizers. The nitrogen may be obtained by growing legumes or by supplying commercial fertilizers. Sweet clover and other plants supply organic matter or food for a new life of soil organisms to improve biological activity. This is essential for a good seedbed for native grass.

Under native vegetation, there is considerable biological activity. This may be observed from the decay of residue, insects, worms, and other forms of life. Eroded, abandoned land has lost most of its organic matter. As a result, there is little or no biological life to start rebuilding fertility and improving the physical condition.

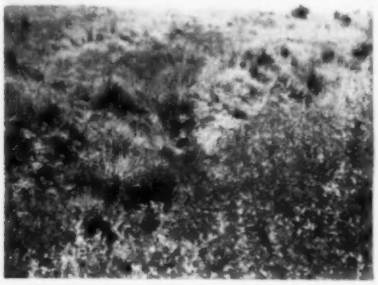
If the land to be revegetated is quite seriously gullied or sheet eroded, special treatment will be necessary. In some areas, it may be necessary to divert the runoff water from the original channels by installing low-cost contour furrows or ridges between and above the source of the gullies.

After runoff has been diverted, satisfactory results have then been obtained by installing vegetative barriers of brush and crop residue, pushing in the gully bank, applying a light application of fertilizer and lime when needed, and introducing legumes. After the legumes are established, grasses may be introduced by the seed-hay method. Where such procedure was followed, the density of vegetation in treated gullies was more than three times greater than in untreated ones.

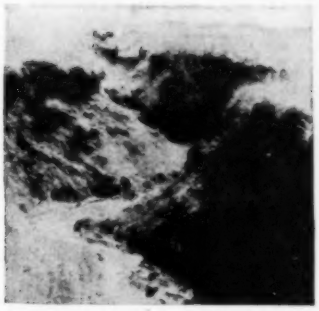
At the Red Plains Station, the seed-hay method has produced better stands and sods than other methods of seeding native grasses on badly eroded land. This method of seeding produced a density of grass which was 2.5 times as great as that from threshed seed. By the end of the second growing season, the density on the

[*Turn to page 178*

Before—Banks of gully have been sloped and prepared for the construction of vegetative dams—water-slowing barriers of brush



After—Two years later, the gully at left looks as it does in the photograph above. Sweet clover has healed the gully's scars



Before—This sharp-cut gully is rapidly taking over good pastureland. When a gully has gone this far, reseeding is difficult

After—But, even though job is not easy, it is possible to stop such a gully as that shown in top photograph. Here it is after treatment

Before—On left bank of this gully, seed hay of little bluestem has been applied. On right, threshed bluestem seed was broadcast

After—In two seasons, a good stand has developed under seed hay. Where threshed seed was broadcast, stand is some thinner

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Bottle of 12	6.80	3.89	2.91

PENSTIX

(Penicillin 25,000 unit strength)

Vial of 6	2.50	1.89	.61
Bottle of 12	4.25	3.19	1.06
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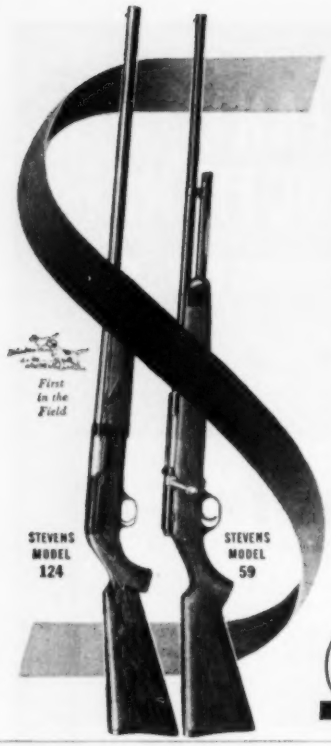

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Stevens Model 258 (not illus.) Same general specifications as Model 59 but in 20 ga. with detachable clip magazine.

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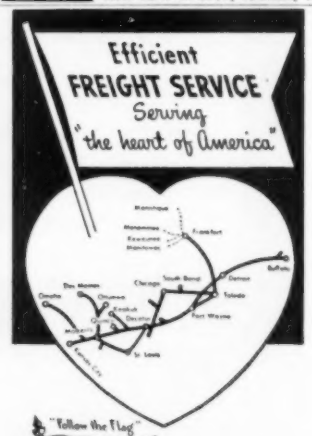


WABASH RAILROAD

Seed hay helps regrass eroded land

[*From page 176*]

seed-hay area was about the same as that of virgin native grass.

Soil Conservationist Harry M. Elwell believes the method is best adapted for severely eroded and gullied land and for seeding bare areas in pastures in the tall grass area of the Great Plains states. The mulch material protects the soil from heat of the sun, and makes conditions more favorable for the establishment of the grass seedlings.

As the residue material decays, it releases organic acids and food for bacteria and worms, and adds organic matter which is essential for germination and growth of the grass and improvement of the soil.

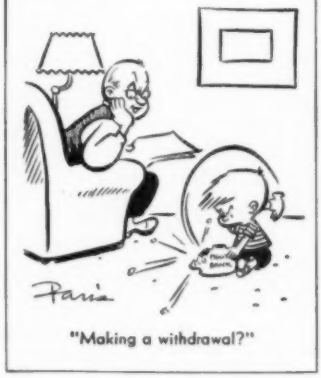
On most farms, there are some wayside places along roads or meadows where native grass usually produces excellent seed. This grass may be mowed immediately after the seed matures, stacked, and spread on eroded land the following spring. If the seed crop is heavy, it may be desirable to spread the seed hay obtained from one acre over 3 to 5 acres and apply straw or other disease- and seed-free mulching material. Usually, 1,500 to 2,000 pounds of hay and straw per acre will give quite satisfactory results.

This hay tends to prevent erosion and to hold a certain amount of seed in place until germination can take place. As the young plants emerge and send down their root systems, they help tie down the residue so that it does not wash off during rains.

Sometimes it is desirable to use a gully location for disposing of water from terraced fields. In this case, it is usually desirable to smooth out the gully with a grader. Any smooth, hard areas should be loosened with a disc or subsurface tiller before applying seed hay.

Hay used for seeding water channels or eroded land should be spread evenly over the area. It may be spread by hand or with a manure spreader. To prevent its washing off before germination starts, it is well to tie the hay down by packing with a corrugated roller, cultipacker, treader, or disc. These implements plant the seed at different depths, and thus tend to insure quick germination of at least a large part of the seed. **END**

SUCCESSFUL FARMING



"Making a withdrawal?"

A good stand of timber should have many sizes, with constant supply of mature trees

Cut your poor trees— give the good ones room

By E. F. Champagne

By cutting the right trees, you can improve your timber stand and still harvest a lot of home-grown lumber.

Select for cutting those trees which are fire-damaged or show evidence of decay. The rate of decay often equals—or exceeds—the annual growth. When this occurs, there is no increase in the net volume of lumber in the trees.

Be sure to cut the stag-headed, short-stemmed, crooked, leaning, branchy-topped, and wolf trees, even though there is no sign of decay. All these decayed and poorly formed trees are using soil and water. By removing them you make space for good, straight trees which will yield high-quality lumber.

The tops, poorer logs, and small trees should be cut into fuel wood and fence posts. They will be harder to split and work up than straight trees, but the improvement of your woods is worth it.

Once these defective and mature trees are out, keep livestock out of the woods.

If you sell your trees on the stump, sell only the larger ones which are mature or near maturity. And insist that the buyer remove the poorly formed and decayed trees along with the good ones. Or, if this cannot be done, plan to go through the woods yourself and remove the cull trees. In marking the good, well-spaced trees for cutting and sale, it is best not to mark any smaller than 14" in diameter. END

Wolf tree

Fire-damaged

Stag-headed

Take these out. All trees that are fire-damaged, stag-headed, or "wolf" trees take up space that should be used by straight, lumber-producing trees. Use the small trees and the crooked ones for fence posts and fuel, then harvest lumber for use in farm buildings

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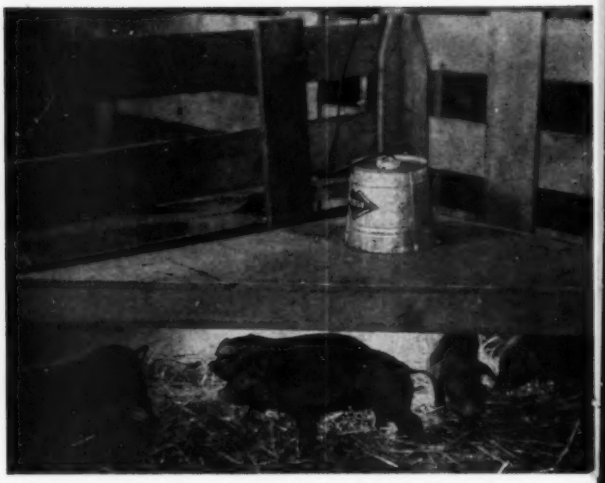
How to cut farrowing losses



Artificial heat—hog raisers now wonder how they got along without it

Author, secretary of the Austin Area Swine Improvement Association, in Minnesota, spends full time with hog raisers

One of the real sources of satisfaction in the hog business is to raise a good average of pigs per sow, year after year. It adds up to the finest type of hog skill and makes for the greatest financial return.

While the average hog man has a $10 investment in each pig farrowed alive, the efficient hog man can start out on an initial investment of $5 per pig. It means the difference between the average hog man's raising 5 pigs per litter and the efficient hog man's raising around 9. The hog man with the $5 against each pig farrowed practices good, sound fundamentals of hog raising.

It pays to help pigs out of the membranes

Your first job is getting those farrowing quarters ready. Hog men are realizing more and more the need of clean surroundings for pigs under 100 pounds.

The benefits of cleaning and scrubbing the pens with boiling lye water are so well recognized that no further discussion is needed here.

There still are some farmers who don't like to bother with washing the sows' sides and bellies with warm, soapy water to remove worm eggs. Yet it's mighty important that the baby pigs have access to sow's milk that is clean.

Good feeding, inheritance mean ample milk

A heavy, fresh snow will clean a sow's sides and udders as well as you can wash them, but it's rather doubtful whether nature will cooperate just when you need it. To get the washing job done, many farmers run their sows into a central hog house where it's warmer than the outside or into one of the 4-sow hog houses where the pig brooders are operating ahead of time. You can't expect pigs to stay completely free of worms even when washing sows and using clean ground, but you can cut the infestation so much that you won't need to worm them later.

One place where many hog raisers slip is in shutting up their sows too early. They often do this a week in advance because they aren't sure of the breeding dates. By playing safe, they're letting the sow go too long without exercise, and that can mean trouble.

Prevent anemia by giving a little dirt, sod

However, it's better to shut her up too soon than too late. And when you see her making her nest, it's too late. By that time she is getting pretty irritable, and you have a lot of trouble getting her into the pen and getting her accustomed to her surroundings.

Sows from our usual breeds can be gentle if in the hands of a good livestock man. It's almost impossible to give a formula for having gentle sows, for it's largely up to the individual farmer and his own disposition. Some farmers wouldn't have gentle sows with any breed. In general, gentle sows accustom themselves to the farrowing pens and to the duties of farrowing much better than less gentle sows which have not been handled very much.

I've heard central houses cussed and I've heard them praised; the same goes for 4-sow or individual hog houses. How well they work depends mostly on how they're used.

There's one thing about a central hog house—you have to keep your eye on the sanitation angle. A strip of concrete on the south or southeast side is practical for exercising pigs without their getting on lots infested with worm eggs and necro.

Little time, big benefits from ear notching

I know a hog raiser—and a good one, too—who used to let his pigs run on the same ground every spring. Then he started getting them out to clean ground. Later, after 13 years of not using the old lot, he put his pigs back on it, and Bingo! He found himself with a nice mess of necro. That shows how long some diseases can stay in the soil.

The movable houses can be put on fresh ground for clean environment. The extra [*Turn to page 182*

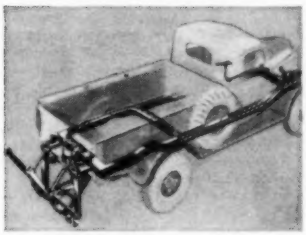
By P. J. Holand

The all-purpose farm vehicle!

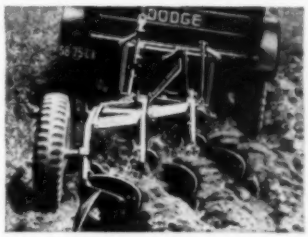
For Easier, More Profitable Farming

From breaking soil to harvest, a Dodge Power-Wagon can save time and money on *your* farm. The Power-Wagon combines, in one mobile unit, the functions of tractor, truck and power plant. With 4-wheel drive, the Power-Wagon gives TRACTION *when* you need it. It gives *PULL as* you need it. It gives POWER *wherever* you need it. Study these pictures. See how you can enjoy easier, more profitable farming. Then talk with your Dodge dealer!

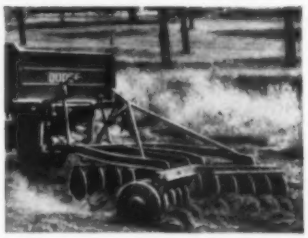
1 The Power-Wagon gives you more horsepower than most farm tractors. Its big express body is 8 feet long, 4½ feet wide. Capacities range up to 8700 lbs. (gross weight).



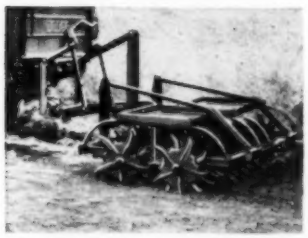
2 For ONE-FIFTH the cost of a tractor, this "Hydraulic Lift" permits you to operate 3-point hitch implements (attachable in 60 seconds) with "finger-tip" ease.



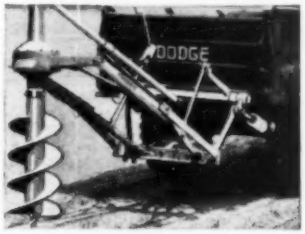
3 With more horsepower than most farm tractors, the Power-Wagon easily pulls a three-bottom plow through the toughest soil . . . and faster, too!



4 Disc harrows, plows, and other 3-point hitch implements can be operated, transported, backed into field corners, and turned sharply . . . from inside the cab.

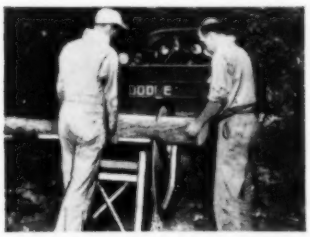


5 For eradicating weeds in row crops, such as corn, cotton, tobacco . . . a Power-Wagon with rotary hoe is hard to beat!



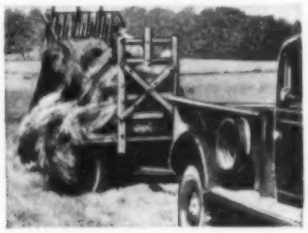
6 You can drill fence post holes at the rate of one a minute. Fence posts can be carried in the big express body.

7 The Power-Wagon's powerful winch enables you to stretch fence easily and quickly, even when travel in fields is necessary.



8 The Power-Wagon supplies ample power for all farm sawing, including timber. There's abundant space for carrying wood.

9 Ensilage cutting . . . and other types of equipment . . . can be operated by a belt from the power take-off of the Power-Wagon.



10 The great traction and pulling power of 4-wheel drive enables you to haul heavily loaded trailers, even over rough fields.

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How to cut farrowing losses

[*From page 180*]

precaution of sticking to a strict sanitation program is most worthwhile, as about two more pigs per litter are raised in many herds as a result of this measure.

Once the baby pigs are chilled, there is apt to be plenty of trouble brewing. In the same category, when the sows go off feed, the little pigs will scour and otherwise suffer from lack of nourishment from sow's milk.

Heat lamps, pig brooders, or some artificial heat is a good investment. They are needed to make pigs comfortable, so that they will sleep without piling. Newborn pigs spend practically 90 percent of their time sleeping, and the skilled hog man naturally knows what pig comfort is. He can furnish pig comfort for his litters in old converted horse stalls, calf pens, hen houses, or most any makeshift places.

Fortunate is the hog man with enough portable houses or a good permanent house. This makes for a much easier operation at various stages of raising hogs.

Most hog raisers at one time or another have had trouble with sows' going dry. Some fellows have more trouble this way than others, and there's often a reason.

This matter of dry sows is partly inherent and partly due to faulty feeding. Hog raisers in our sow-testing project in the vicinity of Austin, Minnesota, have definitely proved that selection of gilts from litters out of good-milking sows will tend to lessen this problem. Some hog raisers using this selection process have found the milk flow to be so generous that, instead of weaning their pigs at the usual 56 days, they let the sows suckle their pigs till they are 70 days old.

From the feeding or nutrition side, it's generally the case of a farmer being too generous with the feed as farrowing time draws near.

There exists a close correlation between heavy milk production and large, thrifty litters. We know that the strain on the sow in farrowing a litter and starting a large flow of milk is most critical. It can best be done on an empty stomach.

A light slop before the sow farrows and no feed after farrowing pay big dividends. For the first 24 hours after farrowing, only lukewarm water should be given the sow, and for the next four or five days the ration should be light. By the tenth day after farrowing the sows should be back on a ration balanced for proteins, grains, and minerals. The hog man senses this recovery of the sow from farrowing and the conversion of her mammary development. He is particularly cautious about a fevered udder. The normal sow for the most part is back on full feed 10 days after farrowing and is milking well.

Being crushed is still one of the biggest causes of baby pig losses. This crushing takes place because the pigs do not have a warm area to nest in, and the sow overlays them. If provided with a comfortable area to sleep, the baby pigs take time out to nurse when they are hungry and generally make a beeline right back except for some playful exercise and attention to their own personal household duties.

With a large number of sows to farrow, the hog raiser should constantly be on guard during the day and every three hours or so during the night. Newborn

pigs can be helped to free themselves from the membranes, start breathing, and get to the mother's teats. The arrivals should nurse as soon after birth as possible, as the sow's colostrum (first milk) stimulates the digestive tract.

Another must is artificial heat, and this should be generating several days in advance of the arrivals. This is true whether the heat be from a common brooder stove, heat lamps, or the 100-watt bulb with reflector in the pig brooder in the corner of the farrowing pen.

The heat lamps and electric brooder do have an advantage over oil and coal types of heaters. Baby pigs are attracted by light and are more comfortable, as a rule, with heat from electricity.

If the sow should happen to be wild or nervous, it is better to keep the pigs away from her for several days, giving them a chance to nurse every two or three hours. When the sow wishes to own her pigs, it is safe to leave them with her.

Bedding is also important. Cut straw or hay is much better than long straw which tangles up pigs. Ground cobs also work.

A mangy sow can infest her pigs, so spray her four weeks before farrowing with Lindane or chlordane at recommended dosages.

As soon as the sow has cleaned, the afterbirth should be burned or buried. Likewise, any dead pigs also should be taken out.

A few days after the sow has farrowed, the pen should be cleaned thoroughly and bedded down with fresh short straw, not too deep.

Pigs, adept at fighting due to having mastered the art of using their needle teeth to punish their litter mates while nursing, can cause much damage. These fighter pigs can also cause much pain in the udder of the sow being nursed. It is entirely possible that these so-called "fighters" can cause some normal-born pigs to become runts because of not getting their just share of the sow's milk.

The best preventive is to remove the needle teeth of all of the pigs at birth with a straight-edge plier or forcep made for that purpose. Along with clipping the needle teeth is the necessity of treating the navels of all newborn pigs with iodine, so as to prevent infection at this source.

Another rule the hog man has put into effect is the placing of clean sod with shut-in pigs of all ages. This is especially true with baby pigs and is the safest preventive for anemia. A small amount of iron sulfate mixed in with the clean sod is also advisable. Another method which seems to be quite satisfactory with many hog men is to dissolve an ounce of iron sulfate in a quart of water and to swab this solution on the udders of the sows every other day.

The matter of sow testing, now recognized as the most practical way of improving our hogs, takes shape at this time, also. By ear notching all litters when they are a day old, they are positively marked so that they can be identified at any later time. It takes but a few minutes per litter at this time, and the ear notching is the key to determining the productive ability of the sow's litter.

The amount of feed eaten by pigs the first month or six weeks is very small, but it does have a great bearing on stepping up the rate of gain per day to market weights. A complete discussion of pig feeding will appear in the next issue. **END**

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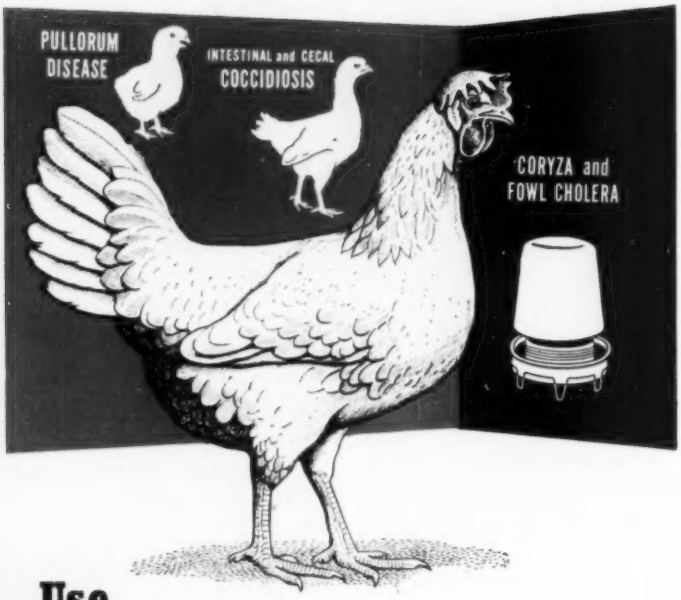

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Read carefully the circular enclosed in the package for *best results* in the use of this product. Prompt treatment after accurate diagnosis is a key to best results. It is advisable to obtain a *laboratory* diagnosis, *especially in intestinal coccidiosis, coryza, pullorum disease and fowl cholera.* Do not hatch eggs laid by hens during medication with sulfas, or for five days thereafter.

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Poultry Department

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ANIMAL INDUSTRY SECTION

More money for old layers

In a recent survey to see what egg farmers were doing to get extra dollars from the often neglected meat end of the business, Cornell University efficiency experts dropped in at Coblenol Farm, near Glens Falls, New York. To their surprise, they found themselves face to face with an assembly line for processing chickens.

The farm, run by Charles and Leon Nassivera, is only moderate in size. But by dovetailing operations and pioneering with laborsaving methods, they squeeze the last possible dollar out of their 1,600 utility-strain New Hampshires. The place is an example of how you can cut man-hours, even if you have to make some of the necessary equipment yourself.

Comparing Coblenol's operations with processing on 184 other farms, Cornell reported that the Nassiveras had "the most desirable plant arrangement" and also turned out the highest quality birds —which means premium prices.

Although eggs are their main line, the Nassiveras have raised the meat end to a quarter of their gross income. In addition, egg production and hatchability have increased because unsatisfactory or lazy layers are quickly ticketed for meat.

1. Start of Charles Nassivera's mechanized chicken dis-assembly line. First, birds are killed, then placed in homemade scalder

3. From scalder, bird goes to mechanical picker, which quickly does defeathering job. System turns "culls" into profit-makers

These poultrymen run them through a homemade dressing assembly line; turn their cull hens into good money-makers

By William Gilman

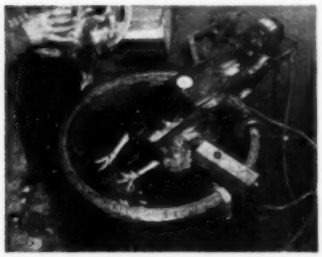
To set up the assembly line—now dressing 6,000 non-laying and low-laying hens annually—the brothers bought what equipment was available and invented their own to supply missing links. For instance, Charley built the automatic electric scalder from $50 worth of "junk"—such things as a washing machine vat, lawn sprinkler, hydraulic doorstop, and a repaired motor. It scalds uniformly.

Friends kidded Charley when they saw him inventing, called him Rube Goldberg. Charley laughs, too, as he explains, "I gave it a long name for the Patent Office—around here we usually call it the 'dunker.'"

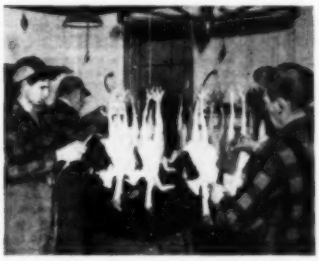
They take only one-tenth as many steps as those who chop off chicken heads and pick feathers by hand. With the time saved, they can take more pains to "fancy" the birds. For example, they brush chickens with a whisk broom after singeing hairs and pinfeathers. A small detail, but it adds profit. The Nassiveras get 10 cents a pound more for their full-fleshed, attractive product than ordinary, cold-storage chickens bring.

The third element in their profit-taking is keeping for themselves the price

[*Turn to page 186*



2. Scalder holds chicken in 128-degree water exactly 30 seconds. This is important, as variations would lower bird's quality



4. Torch singes birds, as they hang from old wagon wheel. Then they are brushed to make sure skin is clean, attractive-looking

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You've selected the blood lines of your chicks with care—chosen a well-balanced feed to build their bodies—but have you planned to supply these growing birds with the necessary teeth?

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The tough, sharp cutting, extra grinding surfaces on STONEMO Hard Grit grind feed finely—help birds get more nutritional value out of every pound of feed—help them put valuable nutrients to work for better growth and production—and at less cost.

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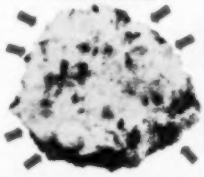

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More money from old layers

[*From page 185*]

spread which middlemen usually take. If Charley is the inventor, younger brother Leon is the salesman. He lists 300 regular customers on the route he drives Fridays and Saturdays with eggs and chickens. And he's convinced quality pays—one customer has been buying for 35 years.

When a coop of birds rolls into the room, dressing operations begin along the 18-foot rear wall. Charley's station is at the four killing cones. He cuts the throat from inside the mouth. By his side is the "dunker," working while he kills birds or helps elsewhere.

Originally, he wanted to save handwork, also lick the problem of varying temperatures at bottom and top of a scalding vat. After trying a water surger, he got the idea of making the bird do the stirring.

It's slipped into shackles at the end of an arm, which a ⅙-hp motor moves up and down, to and fro. The same motor runs a worm gear that governs scalding time. Two 1500-watt elements, thermostat controlled, heat the water.

At the proper second, a lever shuts off the motor and the agitator arm raises the chicken to drain.

Charley explains that faster scalding by using hotter water would down-grade quality. Cooler water, requiring longer immersion, would overtenderize the skin. His prescription is 30 seconds at 128 degrees for the "bloom" that brings premium prices. "And every bird," he says, "comes out alike. No guesswork."

From scalder to mechanical picker means only handing the bird over to brother Leon. After defeathering, he relays the chicken to another "invention" which Cornell recommends. It's as simple as the "dunker" is ingenious—just an old buggy wheel, painted red, hanging from the ceiling like a fan. Its dangling shackles revolve 14 birds to the man who picks remaining feathers and applies the singe.

Chickens are then dropped into the cooler, two feet away, for plumping and removal of body heat. Later, they are drawn at the adjacent table and sink, weighed and packaged.

The Nassiveras aim at processing over 100 chickens weekly, but this cannot always be controlled. That's where the freezer pays its way by leveling off peaks and troughs—storing chickens in time of surplus to meet demands later on. **END**

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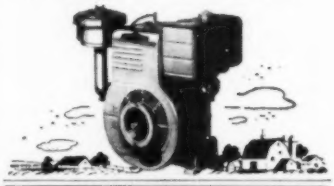

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You can't get the most out of your milking machine when you have to waste time and energy carrying it from cow to cow. That's what prompted Tom Raine, Owatonna, Minnesota, to build a milking parlor in his old barn.

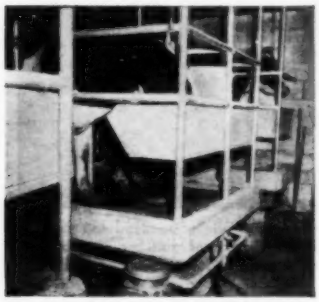
Tom did all his own work, and, when finished, his expenses totaled only $190.

Here's how the milking parlor works: At milking time, 4 cows walk up the ramp into the four 30-inch-high individual stalls. A gate, operated by a series of pulleys, closes behind the cows, holding them in the stalls. Two cows occupy the center stall and are flanked on both sides by two more. The center stall has a 3-foot-deep alley on each side.

The cows are fed their grain rations from the feedboxes at the head of the stalls. Raine works in the two alleys. He washes the cows in the center stall and slips the milking machine on each one. The milk flows into a 10-gallon can in each runway, eliminating a milk pail.

While the two cows in the center stall are being milked, Raine prepares the two in the flanking stalls for milking. When the cows in the center stall are milked, the machine is easily switched to the other two. The milking machine isn't moved. The cows in the center stall are released and two more take their place. This operation is continued until all cows are milked. The runway and elevated stalls are equipped with drains, which are hosed down after each milking.

According to Raine, the new arrangement lets him see and handle the cow's udder better, makes milking easy, and cuts the time spent milking. These advantages mean a bigger profit for Raine from his dairy herd.—*E. J. Erickson.*



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Be sure to send your change of address to *Successful Farming*, Des Moines 3, Iowa, rather than to your local post office. Give both your *old* and *new* addresses. Please furnish a clipping of the stenciled label from a recent issue, or indicate exactly how your magazines have been addressed.

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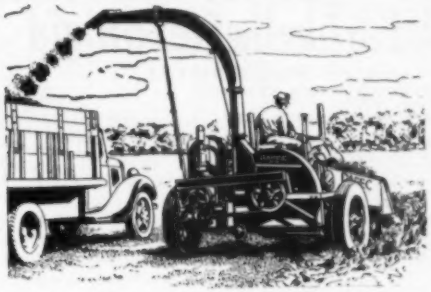

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Don't neglect

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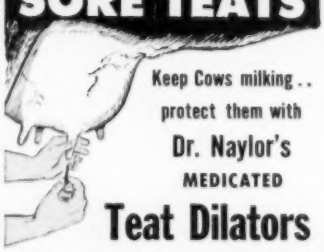

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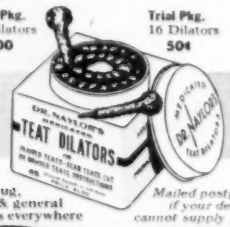

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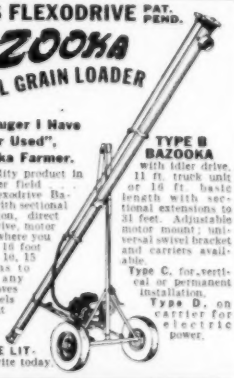

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ROOT ROT—a corn yield robber

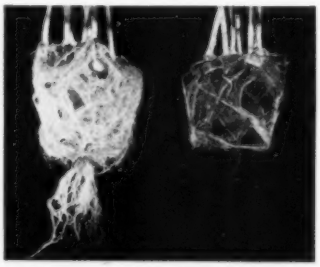
By Dr. George Semeniuk and C. H. Elder
Iowa State College

Everyone knows about the corn borer and the damage it causes. It has been an armed bandit, boldly entering the cornfields of the country by the front gate, with a lot of fanfare. But, for years, another gang of yield-robbers has been quietly at work, causing almost as much, or often much more, damage to the nation's corn crop.

They are tiny fungus parasites that live in the soil and cause root rot in corn. And because root rot is present in every cornfield, and has been for a long time, we do not realize the damage these parasites do. It's a situation that is likely to become more serious as time goes on.

They cut yields, destroying the tiny root branches that take in plant food and moisture. Rootworms, while distinct from these parasites, often help expose roots to fungus parasite damage. They spell the same thing to corn—root rot.

It's hard to tell just what the losses from root rot actually are, because there seems to be no place where corn is free from the disease. Complete losses are rare; but corn everywhere seems to be affected.



Seedlings grown in sterilized soil produce clean, white mass of roots. Seedlings at right, in nonsterilized soil, are brown and rotted

One way to whip root rot will be to breed resistant varieties. The greenhouse seedlings above are our normal, present corn

Though you're probably not even aware it's in your fields, this sneaky villain may be doing more damage than the much-feared corn borer

By trials in the greenhouse, it's possible to tell how much damage can be caused by root rot. Corn grown in sterilized soil sends out a mass of clean, white roots with all their fine branches intact. But corn plants grown in regular, nonsterilized field soil develop brown and decayed roots. Many of the tiny root branches get "pruned" off by decay. It's plain that rot-damaged roots can't do as good a job of supplying moisture and plant food as healthy roots. Plants grown on sterilized soil are taller, stronger, and their lower leaves stay green longer.

Even when damage is visible, other things are often blamed. Root lodging, broken stalks, stalks that die early, some ear rots, poorly filled or nubbin ears, fired leaves, poor pollination—all these can be caused, or made worse, by root rot. No doubt you can recall fields of corn that were as good as any in the neighborhood on the Fourth of July, yet failed to set good ears or developed some other bad, low-yielding affliction. Chances are that root rot was the thing largely responsible.

Some fields, for unknown reasons, seem to have more of these root-rot parasites than others. Old corn land seems to have more than soils that have a good rotation and get a "rest" from corn. When corn is grown on the same ground year after year the organisms naturally increase. They are getting plenty of their favorite food, corn roots, to thrive on.

This probably accounts for some of the drop in yield that comes from raising corn on the same ground year after year. Part of the reason, of course, is the fact that fertility goes down. Soil structure also breaks down under heavy cropping.

But root rot has a lot to do with lower yields, too. As these parasites thrive and

[*Turn to page 190*

These, the same age, are crossed with some Guatemalan corn, and show promise to help control root rot. No chemical seems to help

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Root rot

[*From page 189*]

multiply, they do more damage to root systems. The rotted roots are less able to take moisture and plant food out of the soil. So there's a double lowering effect on yields with lower fertility and more damaged roots.

The damage these soil parasites do to corn roots shows up in two ways. It takes a more productive soil, more fertilizer to get a good yield. Fewer, less healthy roots just don't do the job as well. And if moisture is a trifle short, the roots are not able to supply the moisture the plant needs.

This shows up in our greenhouse experiments in a rather striking manner. At times it gets pretty hot under the greenhouse glass. Even with plenty of water, the seedlings planted in regular field soil often "curl" on hot, sunny days. Their infected roots just can't take in the needed water, even when it's there for them to take. At the same time, seedlings

> **No sin makes a fool out of a man. It only gives him a chance to develop his natural capacities.**
> —*Herbert V. Prochnow*

in sterilized soil don't curl at all. Their healthy root systems provide plenty of moisture in spite of high temperatures.

Much is known about the parasites that cause root rot, but there is still much more to be learned. Treating your seed protects the kernels while they are germinating. But there's no practical way, that we know of, to protect the roots as they stretch down into the soil.

Soil types and the condition of the soil make some difference. However, soil conditions that favor better root development also favor the activity of the parasites that attack corn roots. Getting sufficient air into the soil is just as important to them as it is to your corn.

Light, sandy soils or soils with underlying gravel favor root rot. And in these soils, the disease is especially damaging because the low water capacity increases the moisture problem. Heavy soils, because of poor aeration, discourage the development of root rot but are also unfavorable to best corn production and the root growth of the corn plant. Loam soils support good root development. And because they have greater water and nutrient supplying capacity, these soils make the job of the root system easier.

There seems to be considerable variation in root-rot damage among our present commercial hybrids. So we can't try to develop strains of corn with known resistance to these parasites. In greenhouse experiments, over 100 corn ears of open-pollinated corn were self-fertilized. Out of these, only a few showed resistance to root-rot infection. One of them showed excellent resistance. In time, it may be practical to breed hybrids with this type of resistance.

Another possibility is to develop corn with more abundant root systems. Corn plants that send out more roots, faster, will have a better chance of providing the needed water and plant food in spite of the damage parasites can do.

There are certain lines of corn that

GEHL the most wanted Forage Harvesters

The Gehl has *more years of proved performance* back of it than most forage harvesters. Thousands of users agree that the Gehl leads in better cutting, all-'round performance and *value per dollar*. Built to stand up year after year. Like the long-famous Gehl feed cutters and silo fillers, the Gehl Forage Harvester *cuts uniformly clean and fast* . . . no shredding. Does an equally fine job in windrowed hay, corn or other row crops. Sickle bar attachment also available. *Saves many man-hours and back-breaking work!*

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Gehl Blower elevates fodder to highest silo or mow. Power take-off from blower, or separate electric drive operates Gehl Self-Unloading Wagon and others. FREE PLANS for making self-unloading wagon, using Gehl parts kit.

Gehl Forage Harvester is built with power take-off from tractor as illustrated, or with own motor.

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7	Use 6" or 7" Slim Taper.
8	Use 6" Slim Taper or 7" Extra Slim Taper.
9	Use 6" Extra Slim Taper or 7" Double Extra Slim Taper.
10	Use 5" or 6" Extra Slim Taper.
11	Use 5" Extra Slim or 6" Double Extra Slim.

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Lots of fixin' to be done in the spring. Lots of satisfaction doing it when saws bite fast and crisply. They'll be better sharpened when you use *The right file for the job.* Above chart tells you what size to buy for each of your handsaws. And Nicholson or Black Diamond is the brand to ask your hardware dealer for. *FREE CHART giving further details on saw filing. Write for it.*

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have an abundant root growth. Some of the crosses made between our own inbred strains and Guatemalan corn, produced at the Iowa State College Tropical Research Center in Guatemala, have shown root growth far superior to our best-yielding hybrids. These Guatemalan crosses have been grown in the Midwest and show considerable promise. The development of hybrids with more abundant roots may help to reduce the yield damage that root rot often causes.

When root systems remain healthy throughout the growing period, the corn plant stays greener longer, too. Observations suggest that better yields are obtained when the stalks and leaves do not dry up before frost time, because the plants take advantage of the full growing season. They usually produce better-filled ears with about the same moisture content as those from plants which dried up earlier.

Until we do get hybrids with resistance to the fungus parasite or with superior root growth, what can be done?

Good farming practices help keep down the damage from root rot. Rotating corn with soybeans, oats, and forage legumes—so as not to grow corn on the same ground for more than two years—will help to check the parasites. With rotated crops, weather and other natural factors will hold them to at least an average number. The general productivity of your soil and the use of fertilizers will also help.

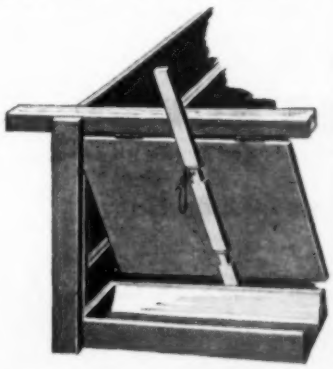
Corn resistant to these parasites can well be the next big improvement. END

Handy pigpen door

Feeding penned-in pigs is easy on the John Rissmiller farm, Northampton County, Pennsylvania. A swinging door on each pen has ended lifting feed.

The door is held in place by two hinges mounted on a 4"x4", and the handle is held in place by two U-bolts. At feeding time, the door is moved inward at the bottom by pulling the handle up and forward. The door can be locked in place by pushing the handle down. To prevent pigs from pushing the handle up, a pin should be inserted in the handle just below the top U-bolt.

The trough, located at the base of the door, can be cleaned easily. The pigs can't get into the trough until the door is closed. The door will open to a height of 3½'. This allows enough room for the pigs to come and go.—*W. F. Rissmiller.*



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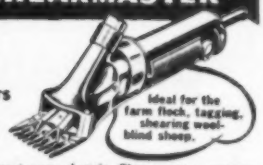
MORE PROFITS
LESS LABOR



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"And when Martha and I are ready to quit work, our U. S. Savings Bonds will let us retire in comfort . . . maybe even take that world cruise we've been hoping for.

"Yes, sir, our future's too valuable to leave unprotected. We're putting every possible dollar in the biggest—safest 'umbrella' of them all—U. S. Savings Bonds!"

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Dairy

How to avoid ketosis

You can't beat a keen appetite and plenty of nutritious feed as a defense against acetonemia (or ketosis) according to the University of Illinois College of Veterinary Medicine. This disorder, which most often hits cows soon after calving, results from too little carbohydrate in the ration.

As a result, the cow breaks down body fat to get her energy, producing more ketone bodies than normally found in her system. Then she's sick. Feeding well-balanced rations during the dry period, as well as after she comes fresh, is an extra precaution for the dairyman to take.

Top production with roughage

Feeding all the alfalfa-brome hay and corn silage his cows will eat is the main reason Helmer Morkre's 14-cow herd has topped the three dairy herd improvement associations in Goodhue County, Minnesota, for two years in succession. His cows averaged 505.4 pounds of butterfat in 1949, an increase of 20 pounds over the previous year.

"I feed alfalfa-brome hay and corn silage practically the year around," he declares. "Oh, there's a 4- or 6-week period when the pasture is good enough so I can discontinue feeding hay and silage. But for the most part, my cows get all the hay and silage they can eat throughout most of the year."

Mr. Morkre takes two cuttings but does not pasture his cows on the fields after the last hay-harvesting job. He prefers to have the alfalfa recover in time to have a fairly good growth before cold weather hits it. He finds that alfalfa hay cut in the early-bud stage and cured to a pea-green color is so palatable that a cow will eat up to 3 or 4 pounds per 100 pounds of live weight.—*H. S., Minnesota.*

Tips on breeding troubles

Whether there is actually more or less sterility in heifers, cows, and herd sires today than 10 or 20 years ago is hard to determine. But half the breeders of dairy cattle—or even beef cattle—feel that breeding efficiency has slipped, according to Dr. M. G. Fincher of the New York State Veterinary College. Most veterinarians in cattle practice feel this is the correct appraisal of conditions in their areas.

Vaginitis, brucellosis, vibrionic abortion, trichomoniac disease, and mixed infections all contribute to the problem of breeding diseases and sterility, says Doctor Fincher, who comments further:

"Whether vaginitis is important or not, we feel that disinfection of affected areas where accompanied by some pus is very important as one step toward controlling sterility. So one rule might be to reduce the severity of vaginitis by setting up control measures. Also regarding Bang's disease and other infections, it is unwise to buy cattle older than 10 months of age.

"Many of us—who spend our lives trying to 'cure' the incurable in the form of infected uteri, overfat sterile heifers that otherwise seem normal, and overworked cows that too frequently are suffering from cystic ovaries—have some

serious reservations about the present knowledge on proper and adequate nourishment of dairy cattle.

"If the nutrition is always correct, the herds should be more able to resist infection and breed regularly. My only rule, as a layman in the complex field of nutrition, would be:

"Pay much more heed to the quality of roughage, supplying abundant, early-cut hay or grass silage and a fresh pasture (one highly fertilized) every few weeks from May to November. In addition, some would do well to use less grain, especially before the heifers are of breeding age and during the dry and freshening periods. A simple mineral mixture should be in front of cattle of all ages in addition to the small amount included in the grain.

"Problems of infertility are intensified during the months of November to April to a point where letters reach us asking what new disease has hit the herds. In some of the herds the only trouble is poor diet and lack of outdoor exercise. So, a good method is to study out a way to get those herds outdoors often, if possible.

"Next, allow the cow 80 days or more after calving before you breed her. If possible, have her examined carefully by a veterinarian about 30 to 60 days after calving to see that she is normal.

"If there was a retained placenta or abortion or very difficult labor at the last calving, it is especially important to have the cow examined. Delay the breeding in such cases until four months or longer after calving.

"One other suggestion: Your success in breeding will hinge on your ability to get a highly fertile herd sire to use on all cows at all times and, if artificial breeding is to be used, make sure the semen is fresh, actively motile, and from highly fertile bulls.

"Many cows are being sold as supposedly 'incurably sterile' each year that would breed if treated as each case indicates and then exposed at pasture or in an exercise lot of fertile bulls. Many, after failing before, will breed artificially following suitable treatment.

"Hormones and manual (by hand) examination, plus a little disinfection by a competent veterinarian, will do a great deal on a few selected cases, but are not substitutes for fertile bulls," says Doctor Fincher.—*J. S. K., New York.*

Revise dairy book

JUST OFF the press is a revised edition of *Elements of Dairying*, by T. M. Olson, late head of the dairy husbandry department at South Dakota State College. Containing 40 chapters and 708 pages, this well-illustrated volume covers the three main phases of the dairy industry: dairy cattle, dairy products, and dairy farming. Given consideration are such new aspects as artificial insemination, fast milking, and hormone influence on milk yield. This book is published by The MacMillan Company, 60 Fifth Avenue, New York 11, New York.

A sign of ketosis

THAT "cowy" flavor sometimes found in milk may be an indication of acetonemia or ketosis, according to observations at the Pennsylvania State College Agricultural Experiment Station. Twenty of 28 samples of milk from cows suffering from ketosis had a distinct "cowy" flavor, 5 were doubtful, and 1 was free of flavor. Two samples didn't react to the test. **END**

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MAKES FARM WORK EASIER

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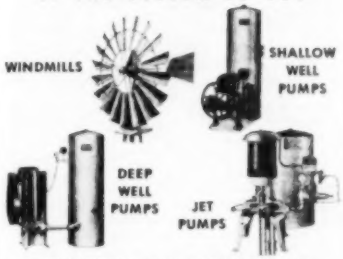

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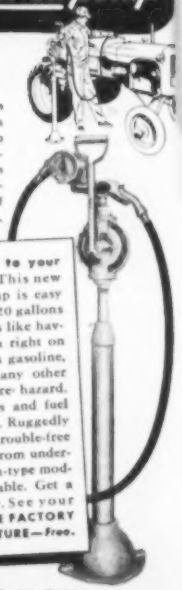

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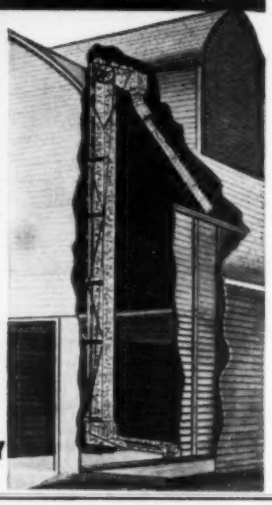

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From Your Cough Due to a Cold

FOLEY'S Honey & Tar Cough Compound

"NO MORE SLEEPLESS NIGHTS"

"I feel so much better since I no longer have to dread those awful sleepless nights! My '*insomnia*' turned out to be due to caffein in the coffee I drank. So I switched to POSTUM and now I get 8 hours of restful sleep every night."

Are sleepless nights, due to "coffee nerves", interfering with *your* good health? . . . Do you wake up in the morning, feeling tired and logy? . . . Then, try a switch to *100% caffein-free* POSTUM. See if you don't enjoy good, *natural* sleep that makes you feel better and enjoy life more.

SCIENTIFIC FACTS: Both coffee and tea contain caffein. And caffein is a drug that acts upon the brain and central nervous system. Also — in susceptible persons — caffein tends to produce harmful stomach acidity. So, while many people can drink coffee or tea without ill-effect, others suffer nervousness, indigestion, sleeplessness. But POSTUM contains no caffein or other drug — *nothing that can possibly keep you awake!*

MAKE THIS TEST: Give up coffee — give up tea — drink POSTUM exclusively for 30 days—and *judge by results!* Ask your grocer today for INSTANT POSTUM—A Vigorous Drink made from Healthful Wheat and Bran—*100% caffein-free!* POSTUM is a Product of General Foods.

Speed Up

Your Old Model John Deere A or B or Farmall F-20, F-30 and Regular Model

Behlen GEAR BOX

Go 9 and 15 m.p.h. on your old model John Deere A or B. Two separate, additional speeds. On Farmall F-20, F-30, or Regular Model, you can do 14 to 15 m.p.h.; or if you prefer, you can have 10 m.p.h. gear box for the F-20 or Regular Model. Installed with or without Lift-All Pump.

Bring your old tractor up to date. Do many more jobs in a day. Ideal for bucking hay, rotary hoes, long hauls, etc. Does not interfere with present gears.

Also Gear Box for Farmall H or M Adds Useful Middle Gear

Equip your H or M with this handy in-between speed of 10 m.p.h. Not too fast, not too slow for many field jobs. If you prefer, you can have 7 m.p.h. gear box. Quickly, easily installed.

Write today for full particulars. Be sure to name tractor you are interested in.

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MARCH POULTRY POINTERS

Flockowners, this is the year to cut costs

Each year, as chick-starting season begins, perhaps you've asked yourself, "Is there any money in chickens?"

This question is difficult, and the reply should not be based on the market conditions as of the time your chicks are started. Rather, it is best to judge profit opportunities on the basis of possible future market conditions. A study of previous years' flock records may be helpful to you.

Income varies widely, changes fast. Feed and egg prices affect your labor income most. Records kept by a group of flockowners, cooperating with the University of Nebraska Agriculture College over a period of years, show that labor income fluctuates widely because adjustments in feed costs and egg prices are not made together.

During the past five years, labor income of this group of flockowners has varied from 81 cents per hen in 1946 to $2.72 in 1945. In 1946, feed prices were 54 cents per hundredweight higher than in 1945, and egg prices up less than 1 cent a dozen. In 1937, feed costs averaged $2.24 per hundredweight and eggs 22 cents a dozen. In 1943, feed was $1.83 and eggs 36 cents.

These figures show quite clearly that labor income varies, depending on the relationship between feed and egg prices. On the average, good flockowners have always made some labor income per each hen housed.

Must tighten our belts. As far back as last November, many farm economists were pointing out that poultry raisers could look for a lower net income in 1950. These economists made this prediction because they felt sure that the prices of the eggs and chickens you sell would be lower and that your costs of production wouldn't fall much.

Knowing this, you will have to plug as many leaks as possible in the poultry program (see story, page 38). And it must be remembered that, even in flocks with the best of management, there are places where savings can be made.

Feed lots of corn. Maybe you, as a Cornbelt farmer, often don't appreciate the value of yellow corn when supplemented with good mash. For poultry feeding, as part of the scratch grain portion of the ration, yellow corn is one of the most valuable grains.

P. H. Gooding, South Carolina poultry extension specialist, points out that yellow corn supplies Vitamin A which other grains do not. And the chicken's need for

Vitamin A is high. Vitamin A in poultry feeding is necessary for production and hatchability. It also helps the birds resist respiratory disorders and infections.

Yellow corn can safely make up the greater part of the scratch grain portion of the ration of laying hens, growing stock, and chicks. Feeding the grain whole is desirable, as the cracked corn loses most of its Vitamin A supply within a few months. Some Midwest commercial poultrymen start feeding whole corn to their growing chicks at 4 to 5 weeks of age.

Prepared for coccidiosis? There are two general types of coccidiosis—cecal and intestinal. The cecal type is commonly referred to as brooder house coccidiosis, as it affects birds 3 to 8 weeks of age. This type is most feared by poultry raisers.

Sulfa drugs are being widely used for control. The several sulfa drugs used include sulfaguanadine, sulfamethazine, sulfadiazine, sulfamerazine, and sulfaquinoxaline. Various methods of treatment have been worked out by manufacturers of the several sulfa drugs, and directions should be followed carefully when using any of them.

Sulfaquinoxaline is one of the latest sulfas to be used in coccidiosis control. It is sometimes fed from the first week of the chick's life and continued for eight or more weeks. When fed continuously, it is fed at a very low rate—approximately 1 ounce per 500 pounds of mash.

There also are some other promising products on the market.

Improve your poultry range. Possibly your flock did not stand up under the strain of production last fall and winter as well as you feel it should have. Sometimes low production and excessive death loss can be charged in part to poor range conditions.

Poultry specialists as well as general poultry farmers agree that a good range

[*Turn to page 196*

Waldo Steen, Miller County, Missouri, uses six flares to keep owls and foxes away from 4,000 turkeys on range. In making easily moved hangers for flares, Steen bolted a 1½" wide piece of wagon tire to a Model-T tire rim. A piece of ⅝" rod, 4' to 4½' long, was threaded on one end and screwed into a hole in the center of the wagon tire. Other end was bent at a convenient angle, a hole drilled in extreme end, and flare hung by wire.—E. B. W., Missouri

Feeding poultry is harder when you feel like this!

FEEDING POULTRY is always a chore. But it's even harder on a day you wake up headachy, feeling dull and logy, because you need a laxative.

So always remember to have Sal Hepatica—the laxative that suits your convenience—in the house.

Taken before breakfast, sparkling Sal Hepatica brings you *speedy, gentle* relief—usually within an hour!

At the same time, antacid Sal Hepatica also sweetens a sour stomach by counteracting excess gastric acidity.

Sal Hepatica is a recommended laxative by *more than half* the doctors interviewed in a national survey!

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your own painter, your own decorator with the step-by-step illustrated guides in Successful Farming's new Home Furnishings Ideas book. Actually 116 pages filled with ideas you can use in your own home. Get your copy today by writing to 3803 Meredith Building, Des Moines 3, Iowa. Only 75c.

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You'll enjoy the dependable, completely automatic water service a BURKS Dual-Purpose Super Turbine System delivers. You'll save money, too, because of its wonderful LIFE-LOK feature. It will outlast any other water system by many years—give you more water—and at lowest cost.

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FASTEETH, an improved powder to be sprinkled on upper or lower plates, holds false teeth more firmly in place. Do not slide, slip or rock. No gummy, gooey, pasty taste or feeling. FASTEETH is **alkaline** (non-acid). Does not sour. Checks "plate odor" (denture breath). Get FASTEETH at any drug store.

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"I suffered with constipation, but *bad*. Medicines didn't help for long. Lucky for me, I decided to make ALL-BRAN my breakfast cereal. Believe me, I feel like a new man!" Sam Plesky, 10517 Churchill Av., Cleve., O. *Just one of many unsolicited letters from ALL-BRAN users.* If *you* suffer from constipation due to lack of dietary bulk, eat an ounce of tasty Kellogg's ALL-BRAN daily, drink plenty of water! If not *completely* satisfied after 10 days, send empty carton to Kellogg's, Battle Creek, Mich. GET DOUBLE YOUR MONEY BACK!

Saves Costly Chick Loss

Low-Cost Pullorum Control

DR. SALSBURY'S **Sulfa**

also Controls *Intestinal* Coccidiosis

Helps protect your poultry investment. Controls these diseases:

- **Controls Pullorum in Chicks**
  Fast-acting... reduces mortality. Costs far less than 1c per bird. Give in mash for chicks' first 7 to 10 days.
- **Controls Intestinal Coccidiosis**
  Fast... effective control. Give in mash 3 to 5 days at first signs of an outbreak.

In powder form for easy use. Buy Dr. Salsbury's Sulfa at hatchery, drug or feed store. Dr. Salsbury's Laboratories, Charles City, Iowa.

Fast-Acting!

Controls **Coryza (colds) In Poultry**

DR. SALSBURY'S **Ar-Sulfa**

Easy-To-Use Liquid
Contains Sodium Sulfathiazole
Reduces Costly Egg Loss

Save needless losses in egg production. Control infectious coryza (colds) easily... quickly with Ar-Sulfa. Give at first symptoms. Generally brings about flock improvement within 48 hours.

Liquid form for easy use in drinking water. Buy Dr. Salsbury's Ar-Sulfa at hatchery, drug or feed stores.

When you need poultry medicines, ask for

Dr. SALSBURY'S

March poultry pointers

[*From page 195*]

area is necessary. If well drained and covered with a sod, a poultry range can be used safely year after year. Not over 600 pullets should be ranged per acre—preferably less.

From the standpoint of ease in establishment and permanence, a Kentucky bluegrass-white clover sod makes one of the best ranges for many areas. It starts early in the spring, stands grazing well, and the chickens like it.

The one disadvantage is that it often dries up during the dry summer months. Well-fertilized range will stay green longer even under such conditions.

One of the easiest ways to establish a good range is by top-dressing an old bluegrass sod with lime and a complete fertilizer. Applying 600 to 1,000 pounds per acre of 5-10-10 or some similar fertilizer, with 1 or 2 tons of ground limestone, usually results in the development of heavy sod that will, with good management, be a great aid in producing good pullets.

Cost of raising pullets. In New York State the cost of raising Leghorn pullets from sexed pullet chicks rose from 92 cents each in 1940 to $2.17 each in 1948. The average cost in 1949 is estimated at $1.93.

For heavy-breed pullets from sexed pullet chicks, the estimated cost figured about $2.20 per pullet in 1949.

Poultry and extension specialists at Cornell University worked out a table so any poultry raiser can use it and figure out the cost of raising his own pullets.

Here are the formulas used:

1. With sexed Leghorn chicks:

Feed: 25 lbs. x price per lb. ..... ____
Labor: 32 min. x value per min. ..... ____
Chicks: 1.1 chicks x price per chick ..... ____
Other items: Add 15 percent of total cost for feed, labor, and chicks ..... ____
Average net cost of pullets ..... ____

2. With sexed heavy-breed chicks:

Feed: 34 lbs. x price per lb. ..... ____
Labor: 33 min. x value per min. ..... ____
Chicks: 1.1 chicks x price per chick ..... ____
Other items: Add 10 percent of total cost for feed, labor, and chicks ..... ____
Average net cost of pullets ..... ____

Hens need grit, oystershell. Professors Heuser and Norris, Cornell University, several years ago showed that the quantity of eggs and quality of eggshells are decidedly reduced when the calcium intake is inadequate.

Hens averaging 190 eggs for a 42-week experimental period ate approximately 3.75 pounds of oystershell, or calcite grit, and 0.7 pounds of granite grit.

Experiments indicated that oystershell and calcite grit fed in special feeders gave better results than the inclusion of ground

● All of which emphasizes the statement "You may rely on the Fox to do the job for which it was designed."

The Fox has 3 interchangeable units, the pick-up cylinder, the mower bar and the corn unit. It will harvest all forage crops grown on the farm. All three harvesting units fit the base machine and the change from one to the other is quickly and easily made. A 3-plow tractor is recommended for power take-off operation. The engine equipped models carry a 40 H.P. engine.

R. Bestinger Secretary

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limestone in the mash. Oystershell seems to be one of the best sources of calcium.

The feeding of granite grit seems to have a favorable effect on egg production. It reduces the quantity of feed required to produce a dozen eggs when fed along with oystershell or with ground limestone.

Better move brooder house. Moving the brooder house to clean ground was one of the first practices in poultry sanitation ever recommended by poultry specialists. It is still a good practice. There's no better way of breaking the chain of worm, coccidiosis, and range paralysis infection.

Lice, mites giving you trouble? Lindane is another new lice and mite control product. Lindane is a short name for "99 percent gamma isomer of benzene hexachloride." It is a refined form of benzene hexachloride. In tests at the Rutgers Agricultural Experiment Station (New Jersey), as little as ½ of 1 percent of Lindane painted on roosts controlled lice, but not mites. A 1.5 percent solution of Lindane killed both lice and mites.

A commercial oil solution can be bought ready to use, or a solution using 4 tablespoons of a 20-percent emulsion of Lindane to 1 quart of water can be made. Lice and a light infestation of mites can be killed by painting roosts and all areas where the birds roost with the solution.

Proper use of Lindane will not result in off-flavored eggs or meat. However, the technical grade of benzene hexachloride may cause off-flavors if used.

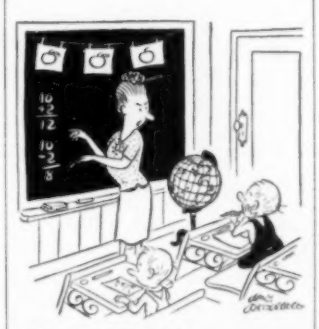
Less labor for layers. To save labor in caring for the poultry flock, have the minimum number of partitions in the laying house. Records kept by G. O. Bressler at Pennsylvania State College prove it.

More and more poultry raisers are running layers in pens that hold 500 birds and more. Then the feeder arrangement is important, too. Arrange them so they can be filled with the fewest possible steps.

Group the nests near the entrance of the pen. Let the hens carry the eggs to a central point. You will have to do less walking.

The Pennsylvania poultrymen say, "Installation of automatic water fountains in pens formerly serviced manually resulted in more reduction in time and distance traveled than any other change on any of the farms." **END**

SUCCESSFUL FARMING



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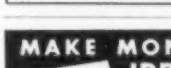

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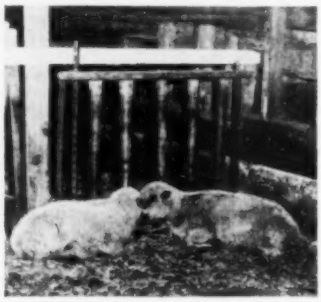
Livestock

Easy on wool

When George Sutter, Waseca County, Minnesota, made a creep for lambs, he used five rollers from an old grain binder (see picture below). Since, unlike ordinary lumber, they have no sharp corners, the rollers neither injure the lambs nor tear their wool.

The rollers are held at both ends by placing their metal tips through holes bored in 2x4's. Steel posts driven into the ground anchor the 2x4's on each side of



the creep. Sutter uses a spacing of about 8 inches between the rollers, although this is adjusted by having two sets of holes in the 2x4's.—*W. J. H., Minnesota.*

Knock the cattle lice

Feedlots full of cattle can lead to huge populations of lice, with plenty of scratching. And that doesn't help put on gains.

Iowa State College recommends two spray formulas, as follows: Mix 8 gallons of 50-percent DDT wettable powder and a box of wetting agent with 100 gallons of water. Or mix 2 pounds of 25-percent Lindane wettable powder and 1 box of wetting agent with 100 gallons of water.

With either spray, use 1 gallon per animal. They are equally good, and one application should do the job.

Ladino good for pigs

The farm of Charles A. Maas and son, Philip, Rock County, Wisconsin, covers only 55 acres. Yet, on that small acreage, the Maases produce pigs from between 30 and 40 sows in the spring and 15 to 20 in the fall. The first 30 sows that farrowed last spring averaged 9.3 pigs to the litter, according to records.

Maas divides his farm into four tracts of about 12 acres each. One of the 12-acre tracts is divided into 12 lots of about 1 acre each, separated from the others by woven wire. He keeps two or three litters in each lot, pasturing the pigs on a mixture of about three-fourths Ladino clover and one-fourth alfalfa.

A Poland China breeder, Maas really likes Ladino clover. "Ladino helped cut our use of protein supplement by about a third," he declares, "yet we got the same results as we would have under our old system of feeding." Maas tries to get his pigs on clean Ladino ground when they're about 6 weeks old.

Maas admits Ladino may look like a high-priced seeding, but he points out that this giant form of white clover re-

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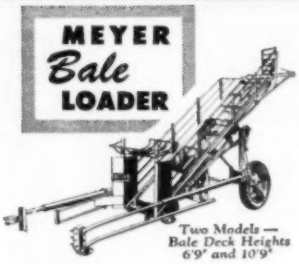

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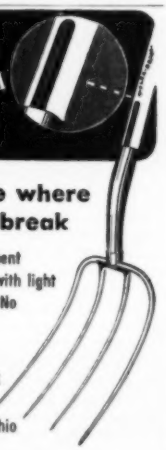
Decorating advice. Stores offering **Successful Farming's** home planning service are listed on page 62. Visit store nearest you for help with decorating problems.

UNION FLEX-BEAM FORKS



unbreakable where other forks break

Steel beam reinforcement gives super-strength with light weight, lively action. No premium in price.

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Columbus 8, Ohio

quires very little seed per acre. Therefore, the cost of seeding is moderate.

He especially likes Ladino for its ability to make a quick recovery after a good, soaking shower. As a result, Ladino gives him good pasturage all through the summer.—*H. S., Minnesota.*

Feed grain, avoid lambing disease

You'LL lessen the chances of lambing disease by adding ½ to ¾ pound of grain mixture to the ewe's ration during the last 4 to 6 weeks before lambing time. Her capacity for hay is so reduced during the last 6 weeks of pregnancy that she can't eat enough roughage to meet her needs and those of the developing lamb.

Under such conditions, the ewe may draw too heavily on her body flesh and fat, producing the disorder called lambing disease or ketosis. If that happens, you may lose some ewes and your lamb crop will be smaller.

Big litters, but gilts ate no more

FEED cost during the suckling period runs just as high for a gilt raising only 5 pigs as for one raising 10, according to recent tests at the Oklahoma Agricultural Experiment Station. Feed cost while suckling was $21.83 for the 5-pig gilts, compared with $21.14 for the gilts raising 10 pigs. The 10-pig litters were 78 pounds heavier at weaning.

Vitamin C saves lambs

LAMBS have a better chance of living if they get extra Vitamin C at birth, according to one season's trials at the University of Wisconsin. Of 1,000 lambs getting a Vitamin C capsule at birth, 38 died. But, of 1,000 not getting any Vitamin C, 56 died. Flockowners cooperating with the university reported that lambs getting extra Vitamin C seemed healthier and more thrifty.

Vaccinate for overeating disease

HEAVY feeder lambs now can be safely finished to top grade at a desired weight of under 100 pounds by first vaccinating against overeating disease and then feeding large amounts of corn.

In tests at the Iowa Agricultural Experiment Station, vaccinated lambs were safely fed rations containing 50 percent, 65 percent, and 80 percent corn. Present rations seldom contain more than 60 percent corn.

The lambs were vaccinated with a bacterin—*Clostridium perfringens*, Type D—two days before they were put on trial. The feeder lambs were Choice grade, mostly white-faced Wyoming lambs weighing 70 to 71 pounds at the start.

There was no significant difference in rate of gain, but lambs fed a ration containing 80 percent corn dressed out 2.1 percent better than lambs getting 50 percent corn, and 1.6 percent better than those receiving 65 percent corn.—*D. C. W., Iowa.*

Solvent bean meal just as good

CONTRARY to popular belief, hogs like soybean meal made by the solvent process just as well as soybean meal which comes from an expeller plant. Furthermore, the solvent-process meal is equally efficient, according to feeding tests at the University of Illinois. These observations are important in view of the fact that most plants are converting to equipment using solvents for dissolving out the oil and are abandoning the process of forcing the oil from the soybeans. **END**

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Home Planning Help
There's a store near you offering **Successful Farming's** home planning service. See page 62 for more about this service.

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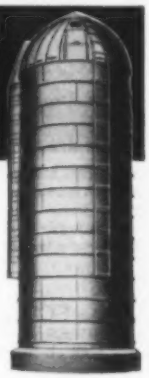

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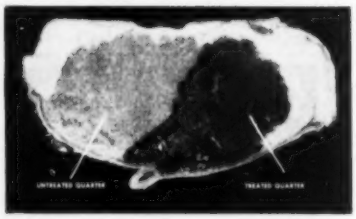
EASY TO USE! Simply unscrew cap, insert tip of Squibb Penicillin Ointment tube into teat, squeeze out ointment, massage upward into quarter. That's all!



EFFECTIVE! A simple experiment, results of which are shown in this unretouched photograph of a detached udder frozen for cross-sectioning, demonstrates how thoroughly Squibb Ointment disperses penicillin throughout a treated quarter of a cow's udder.

Widely accepted because dairy farmers have found it *really works fast*—stops mastitis losses and udder damage!

Widely accepted because it is saving mastitis*-infected cows that might otherwise have to be sent to the butcher.

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Widely accepted because each Squibb "instant-use" tube holds a large, effective dose of Penicillin.

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*Due to *Streptococcus agalactiae*, the cause of the largest percentage of all mastitis cases.

SQUIBB—A NAME YOU CAN TRUST

Veterinary

Lame pigs

NOT SO LONG ago we saw a bunch of feeder pigs that had their owner a little worried.

Three of the animals were "down" and paralyzed in their hindquarters. Some were lame, and some walked only with a peculiar, stiff gait. Still others moved normally, but had badly swollen leg joints. About half of the drove was unaffected in any way. The pigs had been well fed, so there was no question of the trouble being due to rickets or to faulty nutrition.

Investigation finally showed the cause to be chronic swine erysipelas infection that had localized in various joints. This surprised the owner, as the animals had never shown any symptoms of being sick. All of which serves as a reminder that erysipelas can take many different forms.

"Blue baby" calves

AN OWNER recently showed us a 3-weeks-old calf that had been unwell since birth. The little fellow spent a great deal of time lying down, it tired easily and acted "short of breath" following the slightest sort of exertion. It was even unable to drink its milk without pausing to gasp for breath after every few swallows.

The cause was revealed as a faulty heart much like those causing human "blue babies." Such hearts divert part of the blood away from the lungs, and the victim then suffers from partial suffocation and lack of oxygen. This condition is fairly common in calves, but is generally unrecognized.

New kind of cholera?

THERE WERE some really sick pigs at a farm we visited a few weeks ago. Their temperatures were high, and the general symptoms were those of both cholera and erysipelas.

However, the respective serums did no good at all, and many affected animals died. Several specimens were sent to the state laboratory, but findings were not definite.

Careful investigation finally led experts to believe that the outbreak represented an "atypical" or previously unknown type of hog cholera. Reports of a similar disease have been received from widely separated areas during the past year. One of the latest comes from Virginia, so it evidently isn't confined to the Midwest states. Better watch out, as your farm may be the next stopping place for this new menace to hams and pork chops.

Find remedy for fringed tapeworm

A PARASITE of sheep, called the fringed tapeworm, causes plenty of trouble for both growers and the meat packers. Its name comes from the fact that the segments carry a sort of fringe on the rear border. The intermediate host is yet unknown.

Fringed tapeworms have a habit of blocking the ducts leading to the gall bladder and pancreas. This means that an immense number of sheep and lamb livers are discarded by the inspectors as unfit for human food.

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Be rid, for all time, of the bruising bumps of the "vertical mile" you travel daily on an old-fashioned tractor seat. Install a built-to-last Flow-Ting Seat—with instant weight adjustment—at tractor overhaul time. Enjoy its health-saving, spring-hydraulic comfort from now on—across roughest going!

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Write at once for dealer's name and free literature.

KNOEDLER MANUFACTURERS, INC.
DEPT. T-7, STREATOR, ILL., U. S. A.

Drugs or drug combinations which have proved quite efficient in ridding sheep and goats of ordinary "broad" tapeworms have shown little value in treatment of fringed tapeworms. For this reason, veterinarians and sheep raisers are quite enthused over a report from the Wyoming Experiment Station that trials of a new drug called Di-phenthane 70 completely rid test sheep of fringed tapeworms under controlled experimental conditions. Not only that, but it also got rid of all the broad tapeworms.

No poisonous side effects from the fully effective dose were noted.

Swollen jaws in calves

SOME of your young calves been showing up recently with swellings of various sizes along their lower jaws? Been afraid of lump jaw?

Well, you probably can forget about that particular angle, because lump jaw grows so slowly that it is seldom seen in calves under 6 months of age. Instead, you probably are dealing with swellings or abscesses that have been started by bruising of the jaws on stanchions and feedboxes.

Daily painting with iodine for a week or so generally will reduce uncomplicated swellings. When infection has caused pus-filled abscesses, it will be best to have a veterinarian open and drain them.

You may want him to look at them anyway, because so-called "calf diphtheria" may give the same kind of swellings along the jaws. Iodine painting and "lancing" will not cure this latter disease, of course, so it will be best to know exactly what you're up against.

10 causes for abortion

Did you ever see a list of causes for abortion in farm animals? Well, here's one for you to look over:

1. Diseases which carry a high temperature that kills the unborn young: cholera in sows, shipping fever in cows, sleeping sickness in mares, and so on.
2. Contamination of the uterus with nonspecific infections like yeasts, molds, fungi, and various types of bacteria.
3. Improperly handled poisons like fertilizers, worm remedies, paints, sodium iodide, and so on.
4. Starvation diets that may be lacking in essential elements and vitamins.
5. Injuries through falls, kicks, artificial breeding of pregnant animals, and others.
6. Previous injury to the uterus through retained afterbirth and other troubles that prevent a normal gestation period.
7. Disturbed body processes following severe operations, heart troubles, severe loss of blood, and so on.
8. Hormonal upsets due to unknown causes.
9. So-called "lethal factors" that kill the young at various stages.
10. Contagious diseases like brucellosis, dourine, vibrionic abortion, trichomoniasis, and others.

Helpful reminders

THE NEW antihistamine drugs so valuable in alleviating hay fever of humans are equally valuable for relieving nettle rash and other allergic conditions in animals.

•

OVERCROWDING is the most important single factor responsible for outbreaks of respiratory infections of chickens. END

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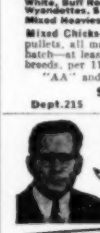

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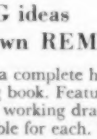

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R. I. Reds, Barred, White, Buff Rocks, Wh. Wyandottes, S. C. Reds	$12.90	$11.90	$14.90
Mixed Heavies	$9.90	$8.90	$11.90

Mixed Chicks—May be all pullets, all males or str. hatch—at least ½ heavy breeds, per 110 ..... $7.90

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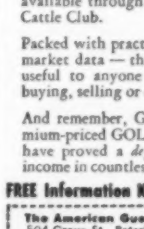

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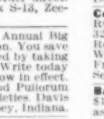

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"AA" and "AAA" Grade Chicks slightly higher.
SCOTT HAYES CHICKS
Dept. Order Office 215 Omaha, Nebraska

It takes good soil to raise good animals

Even soils that are still producing good harvests may be lacking in some of the vital elements that contribute toward maximum good health and growth of livestock.

Corrective measures for protecting and feeding your soil can be found in *Successful Farming's* new 108-page soils book, *"A Better Living From Your Soil."* Ask your Successful Farming Field Service Man to show it to you when he comes next time.

Recognize him by this emblem

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Advertisements using illustration or display (large) type, $5 per agate line. This classification is open to baby chick, poultry, livestock, pet stock, and schools. Straight classified, (no illustration or display type)—20 word minimum—all classifications—60 cents a word. Write Successful Farming, Des Moines 3, Iowa, for complete information.

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African Violet 25c. Sent by guaranteed mail. Sturdy, blooming size, 6-month old. "Pink Sensation", "White Queen", or "Wisconsin Blue Wonder." Enclose 25c stamps or coins, plus 10c postage and handling. Money back guarantee. If ordering 3 send only $1. No COD's on single orders. Owen Nursery, Dept. 2803, Bloomington, Ill. Clip this.

Free Catalog—Save on Cottons—Thrilling values for family and home—shirts, underwear, dresses, prints, towels, sheets, childrens wear. Money-back guarantee. South Carolina Mills, Dept. 448, Spartanburg, S. C.

Rug weaving or braiding long narrow strips of woolen materials assorted colors. 2 lbs. $1.25— 5 lbs. $3.00. Gabardine strips 5 lbs. $3.00. Woolen Cotton Co., Sheboygan, Wis.

Yarns: Free Samples 100% wool. Knitting and Rug Yarns. Patterns; Frames. Unsurpassed values, economy prices. Directions with orders. Bartlett Yarn Mills, Box K, Harmony, Maine.

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Outdoor Toilets, Cesspools. Septic Tanks cleaned, deodorized with amazing new product. Just mix dry powder with water; pour into toilet. Safe, no poisons. Save digging and pumping costs. Postcard brings free details. Burson Laboratories, Dept. H-30, 955 Willard Ct., Chicago 22, Ill.

Women! Sew And Earn! Hundreds of markets open for hand sewing. Circular gives details on selling your work without canvassing. Lists markets. Write: Sewing Research, Stanton 27, California.

New White nylon parachute canopies. Over 50 square yards, $13.95 postpaid. 4 panels $3.95. Write for Catalog. Pacific Co., Box 926-SU, Sacramento, California.

500 quality, colorful, sized, washable quilt pieces $1.00 (free pattern book). 100, 25c. Packed neatly. Pellis, 474 Brooklyn Avenue, Brooklyn, N.Y.

Shelled Peanuts—Selected shelled peanuts. Ideal for home roasting. 2 pounds $1, 5 pounds $2, postpaid.
Sam Williams, Monroeville, Ala.

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Inventors: Learn how to protect your invention. Unless the inventor is familiar with patent matters, he should engage a competent registered patent attorney or agent to represent him. We are registered to practice before the U.S. Patent Office and prepared to serve you in handling your patent matters. "Patent Guide for the Inventor" containing detailed information concerning patent protection and procedure with "Record of Invention" form will be forwarded to you upon request—without obligation. Clarence A. O'Brien & Harvey Jacobson, Registered Patent Attorneys, 030-A District National Building, Washington, D.C.

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Inventor's Guide free on request. Frank Ledermann, Registered Patent Attorney, 154 Nassau St., New York 7, N.Y.

Inventors—If you believe you have an invention, you should find out how to protect it. The firm of McMorrow, Berman & Davidson with offices in Washington, D. C., is qualified to take the necessary steps for you. Send for copy of our Patent Booklet "How to Protect Your Invention." We will also send you an "Invention Record" form. No obligation. They are yours for the asking. McMorrow, Berman & Davidson, Registered Patent Attorneys, 115-C Victor Building, Washington 1, D. C.

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Inventors—Send for "Patent Protection for Inventors" outlining preliminary steps to take in applying for patent. Victor J. Evans & Co., 545-C Merlin Building, Washington 6, D. C.

FILM FINISHING

Moon's new amazing equipment, better prints quick as a flash. Send trial order today. See this quality and quick service. 8 exposure rolls developed and printed contact size 30c, reprints 3c each—8 super-size genuine Moentone prints 35c, 12 exposures 55c, 16 exposures 65c. Mailers Free. Moen Photo Service since 1898, 5 Moen Bldg., La Crosse, Wis.

Prompt Service—Finest Quality. Two prints (deckle-edge) from each negative on roll 35c. Reprints 3c each. For clear sparkling prints send to Welch Photo Co., 2418-36 Penn North, Minneapolis, Minnesota.

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8 prints all enlarged to nearly postcard-size from your roll or negative 25c; 16, 50c. (Trial offer.) Willard-Artcraft Studios, Box 3535-N, Cleveland, Ohio.

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Roll Developed, 8 Brilliant Fadeproof Velox prints and two Professional Enlargements 25c. Trial offer. Young Photo Service, 445-C, Albany 2, New York.

16 reprints 25c with this ad, or roll developed and printed with 16 prints, Skrudland Photo Service, Lake Geneva, Wisc.

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10c each 4x6 enlargements—5x7—15c 8x10—20c, with this ad.
Skrudland, Lake Geneva, Wisc.

DAIRY GOATS

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Have you read the Successful Farming advertising guarantee on the index page? It means exactly what it says. It is worthwhile to you.

RABBITS

Increase Your Income by raising domestic rabbits. Small space needed. Ready market for delicious meat, fur and wool. Largest magazine in the industry tells you how. $1.50 per year. Sample 15 cents. No stamps.
Small Stock Magazine, Lamoni 30, Iowa.

Angora Book Free. Covers latest information on Angoras and possibilities of $3,000 yearly income. Success stories. Markets for wool.
Wilson's, Stanton 27, California.

Raise Rabbits, Hamsters—Ready Market food, fur. Journal teaches how. Year $1.00, sample dime. Standard Rabbit Journal, B-241-5, Milton, Pa.

$400 Monthly. Raise Angora Rabbits backyard easy way. Wool brings top price. Plenty markets. Details free. White's Rabbitry, Newark, Ohio.

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New kind of sheer nylon hosiery, snag-resistant, longer wearing. Perfect personal fit. Fast profits taking orders. Rush name for Free sample stocking. American Mills, Dept. 375, Indianapolis 7, Ind.

Your Personal Lingerie free as bonus—extra cash besides—introducing sensational "Curve-Tailored" idea to friends. Outfit Free. World's-Star, Dept. B-13, Grand Rapids, Michigan.

Free Samples, and amazing plan, giving your Gorgeous Dress without penny cost. Rush name today, with dress size. Harford, Dept. B-335, Cincinnati 25, Ohio.

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27 KINDS CHICKS As Hatched, Sexed or Started
SHIPPED ON APPROVAL
SEND NO MONEY!

ALL popular breeds. Crossbreeds, turkey poults, started pullets. Rare and imported breeds. Pedigreed blood lines. Hatches year-around. We can ship at once. Special offer, CATALOG FREE. **Pleasant Hatchery, Box 513, Pleasant Hill, Mo.**

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brings chicks through at lowest cost

Few cents weekly runs it. Build it yourself, quickly, easily as thousands have. Endorsed by leading poultrymen everywhere. Plans, heater $4.25 postpaid. Write for illustrated, free folder. R. L. Beck, Box 212, Sullivan, Wis.

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INSIDE TRADE INFORMATION for Carpenters, Builders, Joiners, Building Mechanics, and all Woodworkers. These Guides give you the short-cut instructions that you want—including new methods, ideas, solutions, plans, systems and money-saving suggestions. An easy progressive course for the apprentice and student. A practical daily helper and Quick Reference for the master worker. Carpenters everywhere are using these Guides as a Helping Hand to Easier Work, Better Work and Better Pay.

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To get this assistance for yourself simply fill in and mail the **FREE COUPON** below.

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Mail Audels Carpenters and Builders Guides, 4 vols., on 7 days free trial. If O.K., I will remit $1 in 7 days and $1 monthly until $6 is paid. Otherwise I will return them. No obligation unless I am satisfied.

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110 CHICKS, special $7.90 SEE BELOW

Please remember 2 things when you read these sensational prices: (1) They are for 110 chicks. (2) Hayes' chicks are world famous for excellent quality . . . fine meat birds and egg contest winners. Scott Hayes won FIRST PRIZE, all breeds, FIRST PRIZE, All Heavy Breeds, and many other prizes last year in Official Illinois Egg Laying Contest. ORDER NOW to avoid disappointment. 95% sexing accuracy guaranteed. We pay postage on cash-in-full orders. You pay postage on C. O. D. orders. ORDER TODAY.

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R. I. Reds, Barred, White, Buff Rocks, Wh. Wyandottes, S. C. Reds	$9.90	$8.90	$11.90
Mixed Heavies			

Mixed Chicks—May be all pullets, all males or str. hatch—at least ½ heavy breeds, per 110..... $7.90 Light breeds for broilers, mostly males, per 110..... $3.90

"AA" and "AAA" Grade Chicks slightly higher.

SCOTT HAYES CHICKS
Dept. Order Office 215 Minneapolis, Minn.

FREE Book Grow Royal squabs in only 25 days, they sell for highest prices, poultry TOPS, large profit. Write today for FREE book good food starter our prices, easy directions, opportunity success methods of money-making breeders in every State. Start now.
RICE FARM, 207 H. St., Melrose, Mass.

LING'S 200-Egg-Bred Chicks are MONEY MAKERS

You'll want **quality chicks** to build your flock. They cost no more to feed and raise than ordinary chicks. Ling's breeders are selected only from 200-300 egg layers. Improved by **ROP matings.** Backed by 32 years of expert breeding. Modern 40,000-a-week hatchery—noted for **quality.** Pullorum tested. Illinois-U. S. Approved. All popular breeds. WRITE for folder and low prices.

LING'S POULTRY FARMS
R. 3, Oneida, Ill.

SUCCESSFUL FARMING

"They came out of here—so they got to go back in!"

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Make Money Calling on Friends. Show nationally advertised Greeting Card Assortments—16-Card All Occasion Assortment only $1.00—also Birthday, Gift Wrapping, Plastics, Imported English Napkins, Floral Stationery, Children's Books, many more! Up to 50c profit on each assortment. Experience unnecessary. Samples on approval. Write Wallace Brown, 225 Fifth Avenue, Dept. J-4, New York 10.

Amazing offer—$40 is yours for selling only 50 boxes. Also entirely different, new Deluxe All-Occasion assortment with television card, Little Pearls, Hankie Gift Greetings, other surprise items. Feature boxes on approval. Free samples imprinted stationery and Rose Scented Notes. Write today. It costs nothing to try. Cheerful Card Co., 1238 White Plains, N.Y.

Brand New! Amazingly different and smart Everyday Cards. Magic Window Designs. 2 in 1 Metallics. Take Easy orders. Pays up to 100%. Cash Profit. Big Line of Everyday Assts. retail 60c up. Personal Stationery, Coasters, Napkins. Free Imprint Samples. Assortment on Approval. Write Today. North Star, 31 Glenwood, Dept. G-9, Minneapolis, Minn.

Easy dollars even for beginners! Sell friends Plastic greeting cards, Scented Stationery. Profits to 100%. Bonus: Glamorous Metal Foil, Little Pearls, Hankie Gift Greetings. Irresistible novelties. Free samples Imprinted, Decorated Stationery. Deluxe All-occasion samples on approval. Special offers. Write Pilgrim Greetings, 111 Summer, Dept. AK-3, Boston, Mass.

At Last! Something New and Sensational in Everyday Cards. Make Extra Money Fast! Show Gorgeous Satin Velour Metallic Cards. Get orders easy. Scented Stationery, Charmettes, Napkins, Kiddie Cards. 25 other Assts. retail 60c to $1.25. Samples on Approval. Puro Co., 2801 Locust, Dept. 056-C, St. Louis 3, Mo.

Local livestock men. Invest in feeds and resell at good profit. Backed by 25 years experience. Write Midwest Mineral Company, Greenwood, Indiana.

"Suction" Auto Washer. New invention. Mirror finish. Banishes autowashing drudgery. Lightning seller. Samples sent on trial.
Kristee 145, Akron, Ohio.

Free samples. Personalized Stationery, Napkins, Coasters, Matches bring you extra money! Customers buy on sight. Profits to 100%, selling sensational new Plastic Greeting Cards, Gift Wrappings, Children's Books. Big demand. Experience unnecessary. Write today. Senrab Co., 129 N. Warren St., Syracuse, N.Y.

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Free! Big box actual full-size packages groceries, home needs, sent free F.O.B. factory. Try them at home and show friends. World-beating money-making opportunity. Write Zanol, Dept. S094-B, Richmond St., Cincinnati 3, Ohio.

Free Samples. Big profits showing amazing Glow-in-the-Dark specialties. House numbers, pictures, plastic novelties, ashtrays, keyholders, religious and nursery objects, etc. Madison Plastics, 303 Fourth Ave., New York 10, N.Y.

Absolutely Free! Big package actual sample fabrics and style presentation of dresses, lingerie, hosiery, etc. Take orders. Commissions big. Send no money. Melville Co., Dept. 5283, Cincinnati 3, Ohio.

Immediate opening for reliable man with car to call on farmers. No experience necessary. $15 to $20 in a day. Permanent. McNess Company, Dept. 218, Freeport, Ill.

Strange "Dry" Window Cleaner. Sells like wild. Replaces messy rags, liquids. Simply glide over glass. Samples sent on trial. Kristee 146, Akron, Ohio.

Help for Home Planners. For help with your home planning, furnishing and decorating problems, visit one of the stores cooperating with Successful Farming's home planning service. You'll find a store near you listed on page 62.

BUSINESS OPPORTUNITIES

Moneymaking Opportunities. Hundreds to choose from. Read World's Biggest Classified Medium. (Over 1,000 ads). Copy sent absolutely free. Popular Mechanics Classified, 207 East Ontario, Chicago 11.

SALESMEN WANTED

Look Here! Wanted—Men and women to start in business on credit. Sell some 200 farm-home Products. Thousands our Dealers now make quick sales, big profits. For particulars write Rawleigh's Dept. C-192-SHW, Freeport, Ill.

FARM EQUIPMENT

Guaranteed Savings on every purchase from the new 236-page Jim Brown Catalog. It's packed with Fence, Farm Supplies, Housewares, Garden Tools and Equipment, Paint and Roofing. 61 years in business. Write for Free copy of the Jim Brown Catalog today! Jim Brown, Dept. EZ, Cleveland 3, Ohio—Des Moines 9, Iowa.

New Sparrow Trap. Rid your premises of disease-carrying, crop-destroying sparrows. Elevator-type, humane, factory-built, guaranteed. Nothing like it. Write for money back trial offer and free literature. Richwood Box Mill, 903 Detroit Lakes, Minnesota.

$6.50 Pump Drains Cellars, cisterns, wash trays, circulates, irrigates 1800 GPH, requires ¼ to ½ HP. Prepaid if CWO, add 50c West Mississippi. Labawco Pumps, Belle Mead, 4, N. J.

Milking Parlor Stalls. No stooping. Handy operation. Speed milking the sanitary way. Small herds or large. Free catalog. Clay Equip. Corp., 352 N. E. Reed St., Cedar Falls, Iowa.

Booms Wagon Unloaders featuring anchored hook-up. Two speeds. Steel gears and castings. Extra heavy roller units. Write for free folder. Boomsilo Silo Co., Harbor Beach, Michigan.

12 Volt Appliances! Select from the World's Largest line. Enjoy city conveniences. High quality. Low prices. Catalog free. Haines Corp., Dept. K, Minneapolis 2, Minn.

Tarpaulins—New Canvas—Save Money! 14 oz. Waterproof. All sizes. Guaranteed. We pay shipping. Free circular. C-J Stores, 514 N Columbia, Lafayette, Indiana.

Rural Telephones. Modern, hand-set wall and cradle telephones, standard installation accessories, etc. Immediate delivery. Guaranteed to give clear transmission in town or on long rural lines. Free bulletin! Farm Telephone, Dept. 3708 Rogers Park Station, Chicago 26, Illinois.

Farm, Poultry, Lawn Fence, barb wire, posts, gates, irons, roofing, farm supplies. Write for low prices. Interlocking Fence Co., Box 35, Morton, Ill.

Free Barn Plan Book. Best ways to build or remodel your farm buildings. Send for details. Louden, Box SF-140, Fairfield, Iowa.

110-220 Volt. A. C. Generators and Lighting Plants. Get a Stand-By Generator arranged for tractor drive.
Katolight, Mankato, Minnesota.

Windmills. . . famous Currie, direct from factory. $37 up. Guaranteed 5 years. Free literature. Write Currie Windmill, Box 561, Salina, Kansas.

Government Surplus 200 ampere 28 volt DC generators. Use for electric arc welding. $33.00. Free information.
Lewis Short, Burton, Kansas.

Free Catalog—Motors, Generators, Welders made from aircraft generators. Water Softeners, and many other electrical bargains.
LeJay Company, Minneapolis, Minnesota.

Concrete Blockmaker—Daily capacity 100 blocks. Complete equipment $19.95. Write Jack-Sun Manufacturing, Dept. SF-1300 East 59th, Kansas City, Missouri.

Auger Elevators—Why Scoop Grain? Get particulars and price today.
Link Mfg. Co., Fargo, N. Dak.

FOR FARMERS

Men! Large size shoes, large size sox! We specialize in large sizes 10 to 16, widths AAA-EEE. Dress, sport, work shoes. Guaranteed. Write for Free catalog. King-Size, Inc., 327, Brockton, Mass.

Attention Cream Shippers! Ship us your cream. 55 years of honest dependable service. Galva Creamery Company, Galva, Illinois, and Kansas City, Missouri, Peterson's Creamery, St. Paul, Minnesota.

Your Leather Jacket renovated by our craftsmen expertly, reasonably. Request Free descriptive circular No. 14.
Berlew Mfg. Co., Freeport, N. Y.

Decorating advice. Stores offering Successful Farming's home planning service are listed on page 62. Visit the store nearest you for help with your decorating problems.

COONHOUNDS

For Sale: Straight Cooners. Combination tree hounds, Birddogs, High Class Foxhounds, Rabbit hounds and Beagles a specialty. Prices reasonable. Free literature and Pictures. Trial Allowed. Raccoon Kennels, Box 268, Albertville, Ala., Dures Thomas, Owner.

Coonhounds, Combination Hounds, Foxhounds, Rabbit and Beagle Hounds A Specialty. Puppies all breeds. Price Reasonable. Free Literature and Pictures. Trial. Raccoon Mountain Kennels, Box 268, Albertville, Ala., Dures Thomas, Owner.

For Sale: High class Coonhounds, Combination Hounds, fox-hounds, Rabbit hounds, Beagle hounds, Puppies—All breeds. Free literature and Pictures. Trial.
Short Creek Kennels, Boaz, Ala.

For Sale: Coon and Combination Hounds, Foxhounds, and Rabbit hounds. Cheap. Trial. Literature Free.
Dixie Kennels, D. 4, Herrick, Ill.

DUCKLINGS AND CHICKS
Also TURKEY POULTS. Fine breeding. Illustrated Catalog tells how to raise ducks for PROFIT. Sent free.
THE MIDWAY DUCK HATCHERY
Box 60 LaRue, Ohio

Home Planning Help
There's a store near you offering **Successful Farming's** home planning service. See page 62 for more about this service.

LARGE WHITE LEGHORNS
ALSO AUSTRA-WHITES, NEW HAMPSHIRES and WHITE ROCKS. U. S. Approved. Assorted as low as: U. S. Pullorum Passed.
Air Shipments Sexed to Sexed.
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Pullets	Nonsexed
15.90 per 100 Postpaid	10.90 per 100 Postpaid
3-4 Weeks Started Pullets	**Cockerels**
30.90 per 100 F.O.B.	2.90 per 100 F.O.B.

300-Egg Bred CHICKS
Big type Leghorns, New Hampshires, Rocks, Reds, Austra x Whites . . . Top-quality Grade A chicks. ALSO LOW PRICES on SEXED and STARTED chicks and turkey poults. B.W.D. Blood tested to zero. 98% livability record. Write for FREE catalog or order direct from ad.
$9.90 per 100 prepaid
GREAT PLAINS HATCHERIES
Box 2793, Wichita, Kans. or Pleasant Hill, Mo.

KEEP YOUR FIELD-TILE Open
The Economical New FARM - ROD
Cleans Field Tile of Roots, Mud and Other Debris.
Runs by HAND POWER or Tractor Take-Off
NO UNNECESSARY DIGGING. ELIMINATES FLOODED FIELDS
Cleans tile 3" or larger in diameter. Comes in handy, easy to use 25-foot sections which will clean from 5 ft. up to several hundred feet from one opening. Don't wait 'til Spring. Do it now. Write for FREE folder. Give full particulars.
ROTO-ROOTER CORP.
Dept. S3 Des Moines 14, Iowa

HOW TO BE SURE OF Good Stock
every time you buy! Depend on DeWitt's ZEELAND HATCHERY
MAKE Michigan's largest hatchery YOUR dependable supplier for Baby Chicks, Started Pullets, Poults and Ducklings. They offer this complete, reliable service:
- Consistently reasonable prices due to Large Volume.
- Prompt delivery EVERY TIME due to year-round operation.
- Top Quality Breeding that helps you make more profits.
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Which of these money-makers will you raise?
CHICKS — all popular breeds. Sexed, straight run.
STARTED PULLETS — from 2 weeks and older.
TURKEY POULTS — Super Broad Breasts and others. Sexed and straight run.
DUCKLINGS—Giant White Pekins any quantities. Each one a Zeeland specialty.
Everything for the poultry raiser from one dependable source. FREE CATALOGS
DeWitt's ZEELAND HATCHERY, Inc.
Dept. S ZEELAND, MICHIGAN

ORIGINATORS—WORLD'S LARGEST PRODUCERS OF
BERRY'S POULTRY BREEDERS SINCE 1895
RUGGED AS A MULE **AUSTRA-WHITES and BERIGOLDS**
DAY-OLD or 3½ to 4 Wks PULLETS and MEAT COCKERELS
SAVE MONEY Berry's Started Pullets save fuel, labor, loss — and you sell eggs a month earlier.
"We're no longer tied down to chicken houses since raising Berry's Austra-Whites. We've never had another chicken that brought in as much egg and poultry money with as little attention, and as economical for feed cost."—Mrs. T. L. Russell, Iowa. Save work, make sensational profits—write for full information about Berry's advances in crossbreeding.
SENSATIONAL MONEY-MAKERS
Mrs. W. Gard writes: "We've raised thousands. They outgrow, outlay, outprofit any others we've raised." L. Dietzel, "We've bought over 120,000—buyers pay us top prices." C. A. Bosch, "Have built myself a fine independent business—have bought hundreds of thousands."
12 Crosses & Pure Breeds hatching weekly at low farm prices. Day-old or started, sexed or as hatched. By AIR or RAIL anywhere in United States. Write for Free Book.
BERIGOLDS Write for full information about the new cross-breed discovery. Golden-yellow skin, legs. Phenomenal layers.
FAST REPLACING OLD-STYLE CHICKENS
CHEAPER THAN YOU CAN RAISE THEM . . .
PREMIUM BROILERS
C. S. Dahl, buyer of over 300,000 writes: "In our quest for a broiler with high livability that would mature to desired weight at least cost, we believe yours the winner!"
PLUMP BROILERS
GEORGE BERRY 309 Ajax Rd., QUINCY, ILL. (Write Either ADDRESS) ERNEST BERRY 309 Sunflower Rd., NEWTON, KAN.

All around the farm®

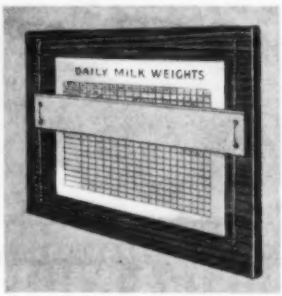
A page written by our readers

I sharpen my electric sheep-clipper with water-mix grinding compound and a 1′ square of plate glass. I wet the glass with fuel oil or kerosene. Water is added to the grinding compound to make a very thin paste.

The cutters and combs of the clipper are thoroughly washed in a wetting-agent solution and dried. The cutters and combs are smeared with a little of the grinding-compound paste and laid on the plate glass, cutting edge down. Circular motion gives the clippers an excellent edge.

I have used one set of combs and cutter for 27 sheep without changing, a record for me for any method of sharpening. The main advantage in using this method is that there is no delay caused by waiting for the blades, as there is when they are sent away for sharpening—*L. D. R., Minnesota.*

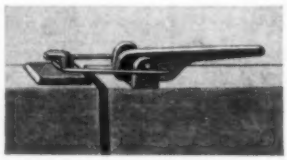
The problem of keeping the milk chart clean when writing in the weights is easily solved with the device shown in drawing. The chart is fastened to the backing, and a long piece of heavy cardboard, punched at each end, is arranged so that it will slide on wires through the holes as illustrated. Whether hands are dry or wet, they can rest on the cardboard, which also provides a perfect guide from one side of the record sheet to the other for writing in the current weight records.—*O. M., Ohio.*



To keep fire in the brooder stove from being blown out by downdraft, I have made a flue top from a length of galvanized stovepipe. I pressed the top end together to form a 1″ opening. Next I cut six 3″ slots in alternating positions, as shown, and then pressed inward on the shaded area. This has been very effective in preventing strong air currents and gusts of wind from putting out the oil flame. —*H. M. J., Minnesota.*

I have a tractor on steel, and to end trouble in winter with snow balling up on the wheels, I cut some old auto tires into strips which fit between the two rows of spades. Using large washers on the outside to keep the boltheads from pulling through the rubber, I bolt the strips in place. This keeps the snow from sticking to the wheels and also gives more traction on either ice or snow.—*K. W. S., Pennsylvania.*

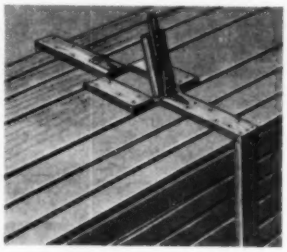
To latch securely the rear doors of our chopped-hay trailers, I have made latches as illustrated. The "boomer" type latch works especially well, for the sides of the trailer have a tendency to spread from the pressure of the chopped hay. When the handle of the boomer is raised, the loop will reach several inches over to the hook on the opposite door. The handle has sufficient leverage to force the doors back to their proper position. When down, the latch snaps past center and never comes unfastened.—*C. W. H., Kansas.*



When a screw hole has become worn so that the screw will not hold, I dip one or more matchsticks in glue, fill the hole with these, break them off even with the surface, and put in the screw immediately.—*C. E. L., Missouri.*

When we plant young trees, we place an old pipe so that one end of the pipe is near the roots and the other end about 3″ above the surface of the ground. We can then water the tree, knowing the water will get to the right place. When the tree is about 3 years old, we pull out the pipe and fill the hole with earth.—*P. M., Michigan.*

To close our poultry crates securely and even permit a padlock to be used if desired, I placed two cleats of wood on the sliding board as shown, spaced to let a third block, hinged to the center of the crate, drop between the cleats. The hinged block has a latch or hasp to hold it in place, and when it is secured it fastens the sliding board firmly.—*E. L., Minnesota.*



When my tractor began giving carburetor trouble, I found a dirty fuel tank, with pieces of rubber and other sediment from a faulty tank hose, to be the cause. After draining the tank and letting it dry overnight, I used the vacuum cleaner with a flexible hose connection to take out every bit of sediment. This ended the trouble without taking off the tank or harming the vacuum cleaner.—*D. R. G., Ohio.*

Successful Farming will pay $5 for each item upon publication. You are invited to send us your ideas. We consider each one carefully, but regret we cannot return those not published.—*The Editors*

Figures on map show average state yield of all contestants from each state. *All yields were made on selected 5-acre contest plots.

Not ONE but 4,428 Farmers Average 101.52 Bushels* of DeKalb per Acre!

• It Pays to Grow DeKalb •

State Winners of the 1949 DEKALB National Corn Growing Contest

NAME	STATE	YIELD
Fred Fiebig	Colorado	179.56
Elwood Godwin	Delaware	133.29
Carl J. Schnitzler	Illinois	170.24
Verle Little	Indiana	209.33
Phillip Marshall	Iowa	190.90
Walter Ruhnke	Kansas	129.45
E. W. Yates	Kentucky	119.10
Ralph J. Davis	Maryland	142.68
James Nyhof	Michigan	142.97
John E. Timm	Minnesota	138.80
Ivan McPike	Missouri	139.44
Chet Rieck	Nebraska	150.17
Harold Fetherman	New Jersey	114.21
Harold Metzner	New York	144.09
J. F. Nagel	North Dakota	106.96
Brautigam Bros.	Ohio	168.04
W. W. Merritt	Oklahoma	151.52
Phil Hyatt	Pennsylvania	153.71
Harold & James Rabe	South Dakota	115.46
W. H. Prowell	Tennessee	114.67
W. E. Hill	Texas	100.32
Herbert N. Kirkpatrick	Virginia	113.11
Irvin Fehling	Wisconsin	204.21

DeKalb is a dependable corn—the kind of corn that's bred to yield well for America's farmers—for you—good years and bad. Proof of DeKalb's yielding ability, under varying weather conditions and on many different soils, can be found in the high average yield of 101.52 bushels made by the 4,428 farmers in DeKalb's 1949 Corn Growing Contest.

1949 CORN CHAMP MAKES 209.33 BUSHELS

The ears of DeKalb corn four-year-old Linda holds so proudly, are part of the outstanding yield of 209.33 bushels per acre her father, Verle Little (left), Lake County Indiana farmer, made to win the 1949 National DeKalb Corn Growing Championship. Good farming plus good DeKalb Seed Corn helped make this yield possible.

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GLADIOLUS BULBS AND FLOWER SEEDS

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VIOLET QUEEN. Ideal edging. Thick with beautiful, sweet-scented flowers. Holds true violet colors through hottest summer.

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SENSATION SPECIAL MIXED. Early flowering giants. Red, pink and white flowers up to 5" across (about twice average size).

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Catalog Price—25c
GIANT MIXED. All large types including new Super Giants. Flowers up to 6" across. Lovely pastel colors found in no other strain. Flower till frost.

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VAUGHAN'S SPECIAL MIXTURE. Dwarf small flowering, single and double, well fringed and ruffled; riotous and dazzling color variety.

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